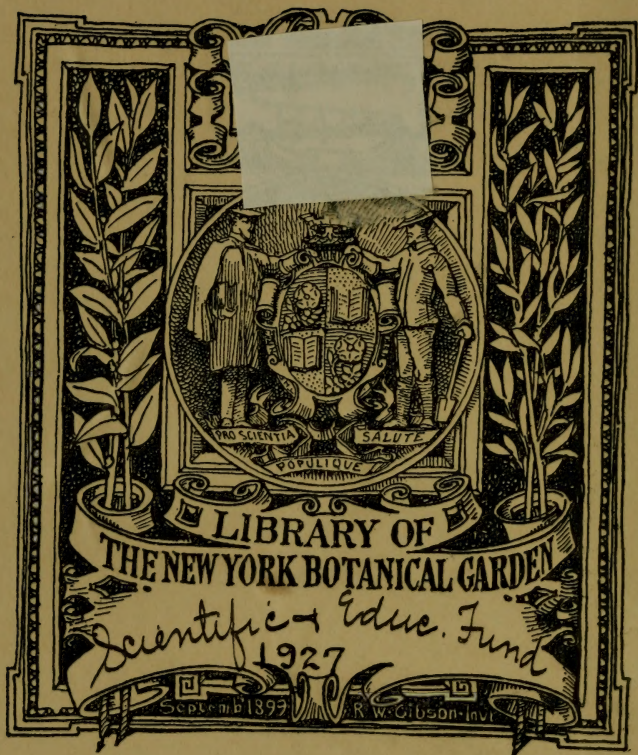


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# Flora of Natal and Zululand

J. W. BEWS.











FLORA OF NATAL  
AND ZULULAND

To Senator the Hon. C. G. SMITH.

THROUGH WHOSE GENEROSITY THE PUBLICATION  
OF THIS WORK WAS RENDERED POSSIBLE.



AN  
INTRODUCTION TO  
THE  
FLORA OF NATAL  
AND ZULULAND

BY

J. W. BEWS, M.A., D.Sc.

Professor of Botany in the Natal University College.

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THE  
FLORA OF NATAL  
AND ZULULAND

J. W. SEWIS, M.A., D.Sc.

## PREFACE.

The following work has been written for the purpose of assisting the study of plant ecology and botanical survey work in Natal. The "Handbook" published by the late Dr. Medley Wood is now no longer up to date, and is also out of print, and his "Revised List," with its supplements, is also incomplete, as well as difficult to procure. A general ecological account of the Natal vegetation, to a large extent compiled from my own previous writings, has been prepared, and it was intended that it should be included as part of the present work, but for various reasons it has been thought advisable to defer publication of this part of the manuscript. This has enabled the main section to be published in a more compact form. Ecological notes have been added in the case of the principal species to the records of distribution. Care has been taken to make the latter as complete and accurate as possible. Various Zulu names have also been included.

The works enumerated in the Bibliography have been consulted throughout, and due acknowledgment of indebtedness must be made in particular to Medley Wood's various lists, to the "Flora Capensis," to Engler's "Pflanzenfamilien," and Thonner's "Flowering Plants of Africa." In the key to the families the last mentioned work was found particularly helpful, since, after due consideration, it was decided that the main principles of sub-division adopted by Thonner were more useful and easier to follow than any that could be substituted, without departing altogether from the natural system. The main groups are decided by the characters of the perianth, and the sub-divisions by the characters of the ovary and ovules. In many cases where there is a likelihood of mistakes being made, the family is included under more than one division.

The keys given in the Flora Capensis have also been drawn upon freely. Considerable simplification throughout has been rendered possible, chiefly by the fact that a smaller area is dealt with. An attempt has been made to bring the nomenclature as up to date as possible, though it is hardly possible to attempt anything approaching finality in this respect until many further monographs have been published by specialists on various families and genera. As it is, the changes that have been found

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necessary on Medley Wood's "Revised List," as well as the additions, are considerable. The Flowering Plants of Natal, as now arranged, belong to 148 families, and include 901 genera and 3,786 species, as compared with 128 families, 865 genera, and 3,310 species as given by Medley Wood.

My thanks are due to Mrs. Bolus for putting the Bolus Herbarium and Library at my disposal, and to Dr. R. Marloth for the use of his private library.

J. W. BEWS.

Natal University College,

May, 1921.



## INTRODUCTION.

The history of Botany in Natal extends over a period of less than a century, though many of the Natal plants were collected more than a hundred years ago in the Cape Colony by Thunberg, Burchell and others. The first Botanist of note to visit Natal was J. F. Drège, who, in the year 1832, travelled northwards together with Dr. Andrew Smith, along the Natal coast belt as far as the Umgeni north of Durban. Drège spent eight years altogether in botanical exploration in South Africa, and when he left he took with him, according to Meyer, about 200,000 dried specimens belonging to nearly 8,000 distinct species. About the time that Drège visited Natal, Ecklon and Zeyher were collecting in the Eastern parts of the Cape Colony, but they did not get further east than the Kei River.

In 1839 Ferdinand Krauss visited Natal and collected chiefly on the coast belt. In his account of the flora of the Cape and Natal (1846) he divides Natal into the three botanical sub-divisions still recognised, viz., Coast belt, Midlands, and Mountains (Drakensberg).

Other early Natal collectors were Dr. Gueinzus, Vance, Williamson, R. W. Plant and E. Armitage. During the twenty years following the colonisation of Natal by white settlers, botanical collecting made rapid strides, and when the first volume of Harvey and Sonder's "Flora Capensis" was published in 1859, acknowledgment was made to John Sanderson, of Durban (after whom the genus *Sandersonia* is named), for valuable collections; to Dr. Sutherland, Surveyor-General of Natal, for small, but carefully selected, collections made in various parts of his district during hasty professional visits, in one of which he discovered *Greyia sutherlandi*; to R. Hallack, of Port Elizabeth, for interesting information on plants of the Natal Colony, accompanied by specimens. During the same period, Dr. Pappe, the Cape colonial botanist, was forwarding specimens, not all collected by himself, to Harvey, some of which, doubtless, may have come from Natal.

In the second volume of the Flora Capensis, published in 1861—2, large collections are acknowledged from W. T. Gerrard and M. J. McKen, Curator of the Botanical Gardens at Durban, jointly and severally. The collections must have been sent sub-

sequent to the publication of Volume I., since many of the new discoveries are dealt with in the addendum to the second volume, and in the second volume of Harvey's "Thesaurus," published in 1863. The publication of these works seems to have stimulated botanical exploration and collecting, for in the preface to Vol. III. of the *Flora Capensis* (1864—5) it is stated that large collections continued to be received from Sanderson, Gerrard and McKen, "the last-named gentleman having contributed within two years over one thousand species of plants." George Fannin, of the Dargle, also commenced contributing, his collections including the beautiful new *Anemone* (***A. fanninii***). T. Cooper also collected largely in Natal in 1861—2.

By this time MacOwan had commenced his botanical teaching at the Cape, and through his pupils, as well as by his own direct labours, botany in South Africa was rapidly advanced. Dr. H. Bolus is another to whom South African Botany owes much.

In 1873—5 F. Oates travelled from Maritzburg northwards through Ladysmith, Newcastle, and the Transvaal to Matabeleland. In an appendix to his published journal, the plants collected by him were dealt with by R. A. Rolfe.

In the years 1875—7 A. Rehmann made a journey from the Cape via Kimberley, Bloemfontein, Harrismith and Maritzburg to Durban. He visited Medley Wood at Inanda. His collections were partly worked up by Szyszyłowicz. (1887—8).

Before this the Rev. John Buchanan had become an enthusiastic and extensive collector. He devoted special attention to the ferns. J. Medley Wood had also commenced his botanical career. His name will always be remembered as that of the chief pioneer botanist in Natal. He was born on December 1st, 1827, and died at the advanced age of 88 years on August 26, 1915. He spent over 60 years in Natal, and he was active up to the end of his long life. For many years he lived at Inanda, and it was there his early botanical collecting was done. He was closely associated at that time with Buchanan. In 1882 he succeeded McKen as Curator of the Durban Botanical Gardens and Herbarium, and he remained at his post for 33 years. He published several successive lists of the flora, and in his "Natal Plants" 600 species were illustrated. In association with Maurice S. Evans, who also collected widely, or with his assistant, Miss Franks, or independently, Wood described numbers of new species. He forwarded to Kew and other European herbaria large numbers of new species to be worked up by specialists. He built up the excellent Durban Herbarium. He was assisted at

various times by Miss Franks, Messrs. Haygarth and Wylie, the last mentioned succeeding him as curator of the Durban Botanical Gardens.

Space does not permit of more than a very brief mention of the numerous other collectors or writers on the Botany of Natal. Further details may be learned from the list of publications which follows. Only workers in, or visitors to Natal, are mentioned, but it should be borne in mind that the Botany of Natal owes a great deal to workers overseas especially the staff of the Herbarium at Kew.

The following list is, it is hoped, fairly complete, though collectors who have contributed only occasional specimens are omitted. Fourcade (who was employed by the Government to investigate and report on the forests of Natal), Justus Thode (who collected and wrote on the vegetation of Natal. (See Bibliography). R. Schlechter (who collected extensively and added large numbers of new species). O. Kuntze, A. Engler, R. Marloth, Mrs. Fanning, Mrs. Saunders, Miss Owen, Mrs. Hutton, Miss Armstrong, Miss G. Edwards, Mrs. Bolus, Dr. E. Doidge, Mrs. Stainbank, H. Bolus, A. Bolus, G. Mann, F. Bachmann, A. Penther, H. G. Flatagan, W. Tyson, H. Junod, F. Wilms, H. Rudatis, Dr. Pole-Evans, Dr. Dimock-Brown, Dr. van der Byl, Dr. Phillips, J. A. Henkel, A. O. D. Mogg, Dr. Schonland, Messrs. Krook, Stone Mariott, Aitken, Gale, Boyle, Allison, Large, Davis, St. George, Jenkinson, Nelson, Baines, Reid, Eyles, Green, Mason, Krebs, Fernando, Symons, Groom, Pearse, Grant, Hewitson, Carnegie.

It may be well to state that the above names are not arranged in any particular order, chronological or otherwise.

Dr. T. R. Sim, formerly Conservator of Forests for Natal, has contributed in his various published works a great amount of information regarding the flora of S. Africa in general, including that of Natal. He has made the trees and shrubs, the ferns and the mosses and hepatics his special objects of study, but he has collected extensively the other plants as well. He has lately very generously presented his Herbarium of Flowering Plants to the Botany Department of the Natal University College.

The writer of this work has since 1910 devoted most of his attention to the study of the vegetation of Natal, chiefly from the ecological standpoint, a field that had hitherto remained untouched so far as Natal was concerned.



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## KEY TO THE FAMILIES.

1. Ovules not enclosed in an ovary (**GYMNOSPERMAE**). 2.  
     Ovules enclosed in an ovary (**ANGIOSPERMAE**). 4.
2. Leaves pinnately compound, large. 1 **CYCADACEAE**.  
     Leaves simple. 3.
3. Seeds drupe like, surrounded by a fleshy aril. 2 **TAXACEAE**.  
     Seeds in cones, dry. 3 **PINACEAE**.
4. Vascular bundles scattered. Leaves usually parallel veined.  
     Flowers usually 3-merous. (**MONOCOTYLEDONEAE**.) 5  
     Vascular bundles in a ring. Leaves usually net veined.  
     Flowers usually 5-merous. (**DICOTYLEDONEAE**.) 30
5. Perianth wanting or rudimentary, or (in *Potamogeton*)  
     anthers with sepal-like appendages. 6.  
     Perianth present, or rarely present in male, wanting in female  
     flowers. 11.
6. Flowers in the axils of chaff-like bracts arranged in spike-  
     lets. 7.  
     Flowers not in the axils of chaff-like bracts, etc. 8.
7. Stems solid. Leaf sheaths usually not split. Seed not adnate  
     to the pericarp. Anthers usually basi-fixed.  
     10 **CYPERACEAE**.  
     Stems usually hollow. Leaf sheaths split. Seeds adnate to  
     the pericarp. Anthers versatile. 9 **GRAMINEAE**.
8. Minute floating aquatics, without differentiation into stem  
     and leaves. 13 **LEMNACEAE**.  
     Plants differentiated into stem and leaves. 9.
9. Ovaries several, separate or rarely 1 (in *Zostera* a marine  
     plant). 5 **POTAMOGETONACEAE**.  
     Ovary solitary. 10.
10. Flowers surrounded by hairs. Seed coat not fleshy.  
     4 **TYPHACEAE**.  
     Flowers not surrounded by hairs. Seed coat fleshy.  
     12 **ARACEAE**.
11. Ovary superior. 12.  
     Ovary inferior or half inferior. 24.
12. Aquatic herbs with carpels 3—8, distinct.  
     6 **APONOGETONACEAE**.  
     Carpels solitary or united, or if distinct then stem woody. 13.
13. Perianth membranous, green or leathery, not petaloid. 14.  
     Perianth, at least the inner whorl, petaloid. 20.
14. Flowers in spadices. 15.  
     Flowers not in spadices. 16.

15. Woody plants. **11 PALMAE.**  
 Herbaceous plants. **12 ARACEAE.**
16. Anthers extrorse. Seeds exendospermic.  
**(Triglochin) 7 SCHEUCHZERIAEAE.**  
 Anthers introrse. Seeds endospermic. 17.
17. Anthers 1 celled. Flowers unisexual. Perianth dry.  
**15 RESTIONACEAE.**  
 Anthers 2 celled. 18.
18. Flowers monoecious in heads surrounded by an involucre.  
**17 ERIOCAULACEAE.**  
 Flowers hermaphrodite, polygamous or dioecious. 19.
19. Style 1 with 3 long, thin stigmas. Perianth dry. Leaves linear.  
**1 JUNCACEAE.**  
 Style 1 with 3 short thick stigmas or with 1 stigma or styles 3.  
**20 LILIACEAE.**
20. Perianth all petaloid. 21.  
 Perianth differentiated into calyx and corolla. 23.
21. Stamens 3. **(Barberetta) 21 HAEMODORACEAE.**  
 Stamens 6. 22.
22. Endosperm mealy. 1 ovule in each cell. Fruit a berry. Leaves ending in a tendril. **(Flagellaria).**  
**14 FLAGELLARIAEAE.**  
 Endosperm fleshy. Ovules usually many. **20 LILIACEAE.**
23. Ovary 1 celled. Leaves radical. Flowers in dense spikes.  
**16 XYRIDACEAE.**  
 Ovary 2-3 celled. Leaves alternate, bases sheathing.  
**17 COMMELINACEAE.**
24. Stamen 1. Flowers irregular. 25.  
 Stamens more than 1. 26.
25. Ovary 1 celled. Staminodes small or 0.  
**27 ORCHIDACEAE.**  
 Ovary 3 celled. Staminodes 1-3 petal like.  
**26 ZINGIBERACEAE.**
26. Stamens 2-4, usually 3, sometimes with sterile ones as well. 27.  
 Stamens 5-6. 28.
27. Flowers unisexual. Ovary 1 celled or incompletely 2 or more celled. **(Lagarosiphon). 8 HYDROCHARITACEAE.**  
 Flowers hermaphrodite. Ovary 3 celled. **24 IRIDACEAE.**
28. Stamens 5 (Wild Bananas **Strelitzia**). **25 MUSACEAE.**  
 Stamens 6. 29.
29. Flowers unisexual. Stems usually climbing.  
**23 DIOSCOREACEAE.**  
 Flowers hermaphrodite. Stems not climbing.  
**22 AMARYLLIDACEAE.**
30. (4) Perianth wanting or simple or consisting of calyx and corolla. Petals, if present, free or cohering slightly, but free at the base. **(ARCHICHLAMYDEAE) 31.**



Perianth of calyx and corolla, with petals united at least at the base. (**METACHLAMYDEAE** or **SYMPETALAE**).

275

- 31. Perianth wanting or simple. 32.
- Perianth differentiated into calyx and corolla. 111.
- 32. Perianth absent in the hermaphrodite and female flowers, but sometimes replaced by bracteoles. 33.
- Perianth present in the hermaphrodite and female flowers. 42.
- 33. Ovary 1 celled. 39.
- Ovary 2-4 celled. 40.
- 34. Ovule 1. 35.
- Ovules numerous. 39.
- 35. Ovule pendulous (Figs. and Indian Hemp).

**32 MORACEAE.**

Ovule basal or attached by a basal funicle. 36.

- 36. Ovule incurved. Embryo curved. Stigmas 2-5. Fruit dry. Flowers usually in glomerules or spike-like cymes.

**39 CHENOPODIACEAE.**

Ovule straight. If fruit dry, then stigma 1. 37.

- 37. Flowers in fascicles. Stigma 1. Fruit dry. **33 URTICACEAE**
- Flowers in spikes. Fruit succulent. 38.

- 38. Shrub. Flowers unisexual, stigmas 2. Fruit a drupe.

Leaves exstipulate. (**Myrica**).

**30 MYRICACEAE.**

Herbs or under shrubs. Flowers hermaphrodite, or, if unisexual, then leaves stipulate. Fruit a berry.

**28 PIPERACEAE.**

- 39. Trees or Shrubs (**Salix**).

**29 SALICACEAE.**

Aquatic Herbs (**Hydrostachys**). **59 HYDROSTACHYACEAE.**

- 40. Numerous ovules in each ovary cell. Styles 3-4.

**64 MYROTHAMNACEAE.**

Ovules solitary in each ovary cell. 41.

- 41. Ovary 2-3 celled.

**80 EUPHORBIACEAE.**

Ovary 4 celled. Styles 2 stamen 1. **81 CALLITRICHACEAE.**

- 42. (32) Ovary superior, or nearly so. 43.

Ovary inferior or half inferior. 97.

- 43. Ovary 1 entire or lobed. 44.

Ovaries 2 or more, distinct or united at the base only. 93.

- 44. Ovary 1 celled. 45.

Ovary 2 or more celled. 73.

- 45. Ovule 1. 46.

Ovules 2 or more. 63.

- 46. Ovule erect or ascending or attached by basal funicle. 47.

Ovule pendulous or descending. 56.

- 47. Ovule straight. 48.

Ovule incurved or inverted. 51.

- 48. Styles 2-4. Fruit a nut. Herbs. **38 POLYGONACEAE.**

Style 1 or none. Stigmas 1 or more. 49.

49. Leaves exstipulate. Stigmas 2. (*Myrica*).

**30 MYRICACEAE.**

Leaves stipulate, rarely exstipulate and then stigma 1. 50.

50. Juice milky. Trees.

**32 MORACEAE.**

Juice not milky. Herbs and shrubs.

**33 URTICACEAE.**

51. Ovule incurved. Embryo curved.

52.

Ovule inverted. Embryo straight or nearly so.

54.

52. Perianth with valvate and folded aestivation, lobed.

Base of perianth enlarged in the fruit, enclosing the nut.

Flowers usually rather conspicuous. **41 NYCTAGINACEAE.**

Perianth not with valvate and folded aestivation, etc.

Flowers inconspicuous.

53.

53. Perianth more or less scarious or papery. Flowers with bracteoles.

**40 AMARANTACEAE.**

Perianth more or less herbaceous or membranous. Stigmas 2—5.

**39 CHENOPODIACEAE.**

54. Leaves stipulate.

**67 ROSACEAE.**

Leaves exstipulate.

55

55. Stamens 4, attached to the perianth segments.

**34 PROTEACEAE.**

Stamens 5-15 free from perianth. Filaments united at the base.

(*Pisonia*) **41 NYCTAGINACEAE.**

56. (46) Ovule straight.

57.

Ovule incurved or inverted.

58.

57. Perianth 4 parted. Stamens 4. Trees or shrubs.

**34 PROTEACEAE.**

58. Leaves stipulate.

59.

Leaves exstipulate.

61.

59. Anthers 3-4 celled. (*Macaranga*).

**80 EUPHORBIACEAE.**

Anthers 2 celled.

60.

60. Shrubs or trees. Juice not milky.

**31 ULMACEAE.**

Figs with milky juice (*Ficus*) or herbs.

**32 MORACEAE.**

61. Anthers opening by valves. Perianth segments 4 or 6.

Seed exendospermic. Trees or shrubs.

**52 LAURACEAE.**

Anthers opening by longitudinal slits.

62

62. Stamens numerous. Flowers unisexual. (*Xymalos*.)

**57 MONIMIACEAE.**

Stamens 8—10. Flowers hermaphrodite.

**106 THYMELAEACEAE.**

- 63 (45) Ovules basal or inserted on a central placenta.

64.

Ovules suspended from apex of cell or parietal.

67.

64. Perianth of 2—3 minute scales.

(*Sphaerotherylax*) **58 PODOSTEMONACEAE.**

Perianth of 4—5 segments.

65.

65. Leaves alternate. Stamens 5.

**40 AMARANTACEAE.**

Leaves opposite or whorled.

66.

66. Stamens 5 or more. **43 AIZOACEAE.**  
 Stamens 1—2 (*Pollichia*). **45 CARYOPHYLLACEAE.**
67. (63) Ovules 2 suspended side by side. Fruit usually 1 seeded. 68.  
 Ovules 2 one above the other or more than 2. 70.
68. Stamens as many as and alternate with perianth segments.  
 Leaves exstipulate. **88 ICACINACEAE.**  
 Stamens opposite or more than perianth segments. 69.
69. Flowers hermaphrodite. Leaves exstipulate. **36 OLACACEAE.**  
 Flowers unisexual. Leaves stipulate. **80 EUPHORBIACEAE.**
70. Ovules attached to a single placenta. Fruit a legume. **69 LEGUMINOSAE.**  
 2 or more placentas, or if 1 then fruit a berry. 71.
71. Perianth segments imbricate in the bud. Ovary sessile. **100 FLACOURTIACEAE.**  
 Perianth segments valvate, or if imbricate, then ovary stalked. 72.
72. Stamens perigynous. Ovary sessile or short stalked. Leaves exstipulate. **107 LYTHRACEAE.**  
 Stamens hypogynous, or if perigynous, ovary long stalked and leaves stipulate. **55 CAPPARIDACEAE.**
73. (44) Ovules 1 in each ovary cell. 74.  
 Ovules 2 or more in each cell. 82.
74. Ovules erect or ascending. 75.  
 Ovules pendulous or descending. 78.
75. Style 1 with 1-3 stigmas. Leaves pinnate exstipulate. **89 SAPINDACEAE.**  
 Styles 2-10 free or united below. Leaves undivided or lobed. 76.
76. Trees or shrubs. Leaves alternate stipulate. **92 RHAMNACEAE.**  
 Herbs or undershrubs or shrubs with leaves exstipulate. 77.
77. Flowers solitary or in cymes. **43 AIZOACEAE.**  
 Flowers in racemes or spikes (*Phytolacca*). **42 PHYTOLACCACEAE.**
78. (74) Flowers unisexual or polygamous. 79.  
 Flowers hermaphrodite. 80.
79. Stamens perigynous; sometimes with staminodes. Ovary 2 celled. (*Trichocladus*) **66 HAMAMELIDACEAE.**  
 Stamens hypogynous. Ovary usually 3 celled. **80 EUPHORBIACEAE.**
80. Trees or shrub (*Peddiea*). **106 THYMELAEACEAE.**  
 Herbs or undershrubs. 81.
81. Flowers very small. Perianth segments 4. Stamens 2, 4, or



6, hypogynous. Ovary cells 2. (*Lepidium*).

**54 CRUCIFERAE.**

Stamens perigynous.

**43 AIZOACEAE.**

82. (73) Flowers unisexual or polygamous. 83.

Flowers hermaphrodite. 87.

83. Style 1 with 2—6 stigmas. Leaves alternate exstipulate.

**89 SAPINDACEAE.**

Styles 2 or more free or partly united. 84.

84. Perianth segments valvate in bud united below. Filaments united. (*Cola*) **86 STERCULIACEAE.**

Perianth segments imbricate or open in bud. If valvate, then filaments free. 85.

85. Fruit a berry or drupe. Stamens 10 or more. Leaves alternate. **100 FLACOURTIACEAE.**

Fruit capsular or separating into mericarps. 86.

86. Raphe dorsal. Leaves opposite exstipulate. Stamens 6.

Shrub (*Notobuxus*).

**82 BUXACEAE.**

Raphe ventral.

**80 EUPHORBIACEAE.**

87. (82) Ovary long stalked. Seeds exendospermic.

**55 CAPPARIDACEAE.**

Ovary short stalked or sessile. 88.

88. Stem herbaceous or woody at base only. 89.

Stem woody throughout. 91.

89. Style 1 or 1 sessile stigma. Seeds exendospermic.

**107 LYTHRACEAE.**

Styles or sessile stigmas 2—5. 90.

90. Stamen 1. Ovary 3 celled styles 3. Water plant (*Tristicha*).

**58 PODOSTEMONACEAE.**

Stamens more than 1. Not water plants.

**43 AIZOACEAE.**

91. Perianth segments united. (See 89). **107 LYTHRACEAE.**

Perianth segments free or nearly so. Stamens hypogynous or nearly so. 92.

92. Perianth segments 5 valvate in the bud. (*Grewia*).

**94 TILIACEAE.**

Perianth segments 3—8, imbricate or open in the bud.

**100 FLACOURTIACEAE.**

93. (43) Ovules 2 or more in each carpel. **96 STERCULIACEAE.**

Ovule 1 in each carpel. 94.

94. Ovule erect. Perianth regular 4—5 parted. Fruit succulent.

Leaves undivided exstipulate. (*Phytolacca*).

**92 PHYTOLACCACEAE.**

Ovule pendulous, or if erect, perianth irregular. 95.

95. Perianth segments united at least in the female flowers.

Stamens perigynous.

**67 ROSACEAE.**

- Perianth segments free or nearly so. Stamens hypogynous. 96.
96. Flowers unisexual. Fruits fleshy. **49 MENISPERMACEAE.**  
 Flowers hermaphrodite or polygamous. Fruits dry. **48 RANUNCULACEAE.**
97. (42) Shrubs parasitic on stems of trees and shrubs. **37 LORANTHACEAE.**  
 Non parasitic or parasitic only on roots. 98.
98. Ovary 1 celled. 99.  
 Ovary 2 or more celled. 106.
99. Ovule 1. 100.  
 Ovules 2 or more. 104.
100. Ovules erect, ascending, attached by an erect funicle or adnate to the ovary wall. 101.  
 Ovule pendulous or descending. 102.
101. Ovule straight. Flowers unisexual. Stamens 1—5 opposite perianth segments. **33 URTICACEAE.**  
 Ovule inverted. Flowers usually in heads. Stamens alternating with perianth segments. **148 COMPOSITAE.**
102. Flowers unisexual. **32 MORACEAE.** 103.  
 Flowers hermaphrodite. 103.
103. Stamens 2. Leaves large radical. (*Gunnera*). **114 HALORRHAGACEAE.**  
 Stamens 3—5. Leaves alternate. **43 AIZOACEAE.**
104. (99) Stamens 8 or 10. **110 COMBRETACEAE.** 105.  
 Stamens 3—6. 105.
105. Styles 4. Ovules 4. Stamens 4. Petals in male flowers. (*Laurembergia*). **114 HALORRHAGACEAE.**  
 Style simple or wanting. **35 SANTALACEAE.**
106. (98) Ovule 1 in each ovary cell. 107  
 Ovules 2 or more in each ovary cell. 110.
107. Ovules erect or ascending. 108.  
 Ovules pendulous or descending. 109.
108. Leaves opposite or whorled. **142 RUBIACEAE.**  
 Leaves alternate. **92 RHAMNACEAE.**
109. Flowers in umbels or heads. **116 UMBELLIFERAE.**  
 Flowers solitary or in axillary fascicles or spikes. Water plant. (*Myriophyllum*). **114 HALORRHAGACEAE.**
110. Flowers unisexual styles 2—6. (*Begonia*). **103 BEGONIACEAE.**  
 Flowers hermaphrodite. Style 1. (*Ludwigia*). **113 OENOTHERACEAE.**
111. Ovary superior or nearly so. 112.  
 Ovary inferior or half inferior. 240.
112. Sepals 4, petals 4. Stamens 6 (4 longer, 2 shorter). Ovary 1—2 celled, or transversely septate. Herbs or under-shrubs. **54 CRUCIFERAE.**

- Stamens not 6, or if 6 then not 4 longer and 2 shorter, or flower different otherwise. 113.
113. Ovary 1. Entire or lobed. 114.
- Ovaries 2 or more distinct, or united at the base only. 226
114. Ovary 1 celled, sometimes with incomplete partitions or containing 1 or more empty rudimentary cells besides the fertile one. 115.
- Ovary 2 or more celled, the partitions sometimes not quite reaching the apex; or one cell only fertile, the others empty, but well developed. 156.
115. Ovule 1. 116.
- Ovules 2 or more. 126.
116. Ovule erect or ascending, or attached by a basal funicle. 117.
- Ovule pendulous or descending. 122.
117. Leaves stipulate. Sepals 5. 118.
- Leaves exstipulate. 120.
118. Stigmas 2—3. Flowers regular. **45 CARYOPHYLLACEAE.**
- Stigma 1. 119.
119. Style basal or nearly so. **67 ROSACEAE.**
- Style terminal, or nearly so. Stamens 5—10.
- 69 LEGUMINOSAE.**
120. (117) Sepals more than 2. **83 ANACARDIACEAE.**
- Sepals 2. 121.
121. Leaves undivided. Style 3 parted. (*Portulacaria*). **44 PORTULACACEAE.**
- Leaves dissected. Style simple. **53 PAPAVERACEAE.**
122. (116) Leaves stipulate. 123.
- Leaves exstipulate. 124.
123. Flowers irregular. Style simple. **69 LEGUMINOSAE.**
- Flowers regular. Styles 3—4 (*Erythroxyton*). **73 ERYTHROXYLACEAE.**
124. Flowers unisexual. Stamens opposite or more than the petals. Leaves simple or digitate.
- 49 MENISPERMACEAE.**
- Flowers hermaphrodite or polygamous, or if unisexual stamens alternating with the petals or leaves pinnate. 125.
125. Style simple. Stigma entire. Leaves undivided. **106 THYMELAEACEAE.**
- Stigma lobed. Leaves pinnate. **83 ANACARDIACEAE.**
126. (115) Ovules 2. 127.
- Ovules 3 or more. 138.
127. Ovules or their funicle erect or ascending. 128.
- Ovules or their funicle pendulous or descending. 133.
128. Ovules one above the other. If not, then flowers irregular and style terminal. 129.
- Ovules side by side. Flowers regular. If not, then style basal. 130.



129. Flowers regular. Stamens 5. (*Walteria*).  
**96 STERCULIACEAE.**  
 Flowers irregular; if not, then stamens more than 5.  
**69 LEGUMINOSAE.**
130. Leaves compound. Climber (*Cnestis*).  
**68 CONNARACEAE.**  
 Leaves simple, undivided, or, if dissected, then herbs. 131.
131. Styles 2. Leaves opposite. Herbs or under shrubs.  
**45 CARYOPHYLLACEAE.**  
 Style 1. Stigma 1. If leaves opposite, then shrubs or trees.  
 132.
132. Leaves alternate. Style basal. **67 ROSACEAE.**  
 Leaves opposite. Style terminal or nearly so.  
**85 CELASTRACEAE.**
133. Ovules one above the other. If not, flowers irregular, with  
 9—10 stamens. **69 LEGUMINOSAE.**  
 Ovules side by side. Flowers regular. If not, stamens 3—6.  
 134.
134. Ovules attached laterally. Stamens 3—5. Flowers usually  
 unisexual. Leaves exstipulate, usually compound.  
**75 RUTACEAE.**  
 Ovules apical, rarely lateral, and then stamens more than 5.  
 Leaves simple. 135.
135. Stamens 4—5. Leaves exstipulate. **88 ICACINACEE.**  
 Stamens 10 or more. Leaves stipulate. 136.
136. Stamens 10, styles or stigmas 3—4.  
**73 ERYTHROXYLACEAE.**  
 Stamens 12 or more. 137.
137. Style 1. Stigma 1. Stamens 12—20. **67 ROSACEAE.**  
 Styles 2—6 or style 1, stigmas 2, and then stamens more than  
 20. **100 FLACOURTIACEAE.**
138. (126) Ovules basal or attached to a central placenta. 139.  
 Ovules attached to one or more parietal placentas. 144.
139. Ovules basal. 140.  
 Ovules attached to a central placenta. 141.
- 140 Style or sessile stigma 1 entire. (*Pleurostyli*).  
**85 CELASTRACEAE.**  
 Styles stigmas or stigma lobes 2—6.  
**45 CARYOPHYLLACEAE.**
141. Stamens 5 opposite petals. Fruit 1 seeded. (*Embelia*).  
**119 MYRSINACEAE.**  
 Stamens alternating with petals or fewer or more. 142.
142. Calyx valvate. Style 1. Stigmas 1 or 2.  
**107 LYTHRACEAE.**  
 Calyx imbricate. Style 1 with 3 or more stigmas or styles 2 or  
 more. 143.

143. Sepals 2, leaves alternate. **44 PORTULACACEAE.**  
 Sepals 4—5. Leaves opposite. **45 CARYOPHYLLACEAE.**
144. (138) Ovules attached to 1 placenta. **69 LEGUMINOSAE.**  
 Ovules attached to 2 or more placentas. 145.
145. Herbs with glandular hairs and leaves in rosettes.  
 Insectivorous. (*Drosera*). **57 DROSERACEAE.**  
 Not insectivorous herbs with glandular hairs. 146.
146. Herbs or undershrubs with irregular flowers in spikes or  
 racemes. Alternate stipulate leaves and ovary open at  
 the top. (*Oligomeris*). **56 RESEDACEAE.**  
 Ovary not open at top, etc. 147.
147. Sepals 2 (rarely 3). Petals 4 (rarely 6). Herbs.  
**53 PAPAVERACEAE.**  
 If sepals 2 or 3 and petals 4 or 6 then stem woody. 148.
148. Fertile stamens as many as petals or fewer. 149.  
 Fertile stamens more than petals. 153.
149. Fertile stamens 2, 4 or 6. Flowers hermaphrodite.  
**55 CAPPARIDACEAE.**  
 Fertile stamens 5, or if 4 or 6, flowers unisexual. 150.
150. Sepals 3 united. Petals 3 or climbing plants with unisexual  
 flowers. **101 PASSIFLORACEAE.**  
 Sepals free or nearly so, or not 3, or not climbing plants. 151.
151. Staminodes present. Anthers opening by pores. (*Ochna*).  
**97 OCHNACEAE.**  
 Staminodes wanting. 152.
152. Leaves stipulate. Flowers more or less irregular. Placentas  
 3. **99 VIOLACEAE.**  
 Leaves exstipulate. Flowers regular. Tree. (*Pittosporum*).  
**62 PITTOSPORACEAE.**
153. Leaves usually pinnate. Filaments united throughout their  
 whole length. **77 MELIACEAE.**  
 Leaves simple or digitate. Filaments free or united in  
 bundles, or at the base only. 154.
154. Filaments united in 3—5 bundles. Leaves opposite undivided  
 exstipulate. **98 GUTTIFERAE.**  
 Filaments free or united at the base only. 155.
155. Sepals 4 or ovary long stalked. **55 CAPPARIDACEAE.**  
 Sepals not 4 or ovary sessile. **100 FLACOURTIACEAE.**
156. (114) Ovule 1 in each ovary cell. 157.  
 Ovules 2 or more in each ovary cell. 180.
157. Ovules erect or ascending. 158.  
 Ovules pendulous, descending or horizontal. 167.
158. Disc outside the stamens, sometimes one-sided or broken up  
 into several glands. Leaves alternate compound, or if  
 simple, then stamens 8—10. 159.  
 Disc or glands within or between the stamens or wanting,

- or if outside then leaves simple and stamens 4—6. 160.  
 159. Flowers hermaphrodite. Petals 5, stamens 4—5. Ovary 4  
 celled. Seeds endospermic. (**Bersama**).

**90 MELIANTHACEAE.**

Flowers unisexual or polygamous. Seeds exendospermic.

**89 SAPINDACEAE.**

160. Petals and stamens hypogynous. 161.  
 Petals and stamens more or less perigynous. Leaves  
 simple stipulate. Shrubs and trees. 166.  
 161. Sepals 3. Petals 3 or 6. Shrubs or trees. **50 ANONACEAE.**  
 Sepals 4—5, rarely 2. Petals 3—5. 162.  
 162. Sepals 5 valvate in bud. Leaves simple stipulate. 163.  
 Sepals imbricate in the bud, or if valvate, then only 2 leaves.  
 Exstipulate. 164.  
 163. Anthers 1 celled. Stamens numerous and united, ovary 3 or  
 more celled. **95 MALVACEAE.**

Anthers 2 celled, stamens 5, or if more, ovary 2 celled.

**96 STERCULIACEAE.**

164. Leaves opposite. **98 GUTTIFERAE.**  
 Leaves alternate. 165.  
 165. Leaves pinnate. Shrubs or trees. **77 MELIACEAE.**  
 Leaves simple. Herbs or undershrubs (**Limeum**).

**43 AIZOACEAE.**

- 166 (160) Stamens opposite petals. **92 RHAMNACEAE.**  
 Stamens alternate with petals. **85 CELASTRACEAE.**  
 167. (157) Flowers unisexual. 168.  
 Flowers hermaphrodite or polygamous. 170.  
 168. Leaves compound. Shrubs or trees. **83 ANACARDIACEAE.**  
 Leaves simple. 169.  
 169. Ovary slightly sunk, 2 celled, styles 2. (**Trichocladus**).

**66 HAMAMELIDACEAE.**

Ovary wholly superior, usually 3 celled.

**80 EUPHORBIACEAE.**

170. Flowers distinctly irregular. Sepals 5. Petals 3—5. Stamens  
 8, united into a split tube. Leaves simple.

**79 POLYGALACEAE.**

- Flowers regular or nearly so, or if distinctly irregular, then  
 leaves compound. 171.  
 171. Filaments free. 172.  
 Filaments united at least at the base. 176.  
 172. Disc present ring, cushion or cup shaped. 173.  
 Disc absent, leaves simple. 175.  
 173. Leaves stipulate Herb. (**Tribulus**). **74 ZYGOPHYLLACEAE.**  
 Leaves exstipulate shrubs or trees or undershrubs. 174.  
 174. Flowers polygamous. **83 ANACARDIACEAE.**  
 Flowers hermaphrodite. Leaves gland dotted.

**75 RUTACEAE.**

175. Sepals united into a minute 4-5 toothed calyx.  
 (Ximenia) 36 OLACACEAE.  
 Sepals free or united at base only. (Climbers.)  
 78 MALPIGHIACEAE.
176. Stamens numerous. Anthers 1 celled. Calyx valvate.  
 95 MALVACEAE.  
 Stamens 5—12. Anthers 2 celled. Calyx imbricate or open.  
 177.
177. Style 1 with 1 or 2 stigmas. Leaves compound exstipulate.  
 71 MELIACEAE.  
 Styles 2—5, free or united, but with stigmas not contiguous.  
 178.
178. Stamens 5. (Linum). 72 LINACEAE.  
 Stamens 10—12. 179.
179. Herbs. Ovary 5 celled, styles 5. (Oxalis).  
 71 OXALIDACEAE.  
 Shrubs or trees, ovary 1—4 celled. 73 ERYTHROXYLACEAE
180. (156) Ovules 2 in each ovary cell. 181.  
 Ovules 3 or more in each ovary cell. 208.
181. Style 1, or styles 2 or more, united to base of stigmas, or 1  
 sessile stigma. 182.  
 Styles 2 or more, free or united below, or 2 or more sessile  
 stigmas. 199.
182. Stamens as many as, or fewer than the petals. 183.  
 Stamens more than the petals. 189.
183. Stamens as many as, and opposite the petals. 184.  
 Stamens alternate with the petals or fewer. 185.
184. Petals valvate. Filaments free. Ovary 2 celled. Fruit a  
 berry. 93 VITACEAE.  
 Petals imbricate. Filaments not free. Ovary 2 or more  
 celled. Fruit a capsule. 96 STERCULIACEAE.
185. Shrub with 4 large spines in leaf axils. Flowers dioecious.  
 (Azima). 87 SALVADORACEAE.  
 Leaf axils not with 4 large spines. 186.
186. Anthers extrorse. Stamens 3. Ovary 3 celled (Salacia).  
 86 HIPPOCRATEACEAE.  
 Stamens not 3 with ovary 3 celled. 187.
187. Leaves gland dotted, exstipulate, but sometimes with axillary  
 spines. 75 RUTACEAE.  
 Leaves not gland dotted, stipulate. 188.
188. Sepals valvate, coloured, hooded at the point, and dorsally  
 mucronate. (Triumfetta) 94 TILIACEAE.  
 Sepals with imbricate or open aestivation.  
 85 CELASTRACEAE.
189. Trees with thick resinous bark. Receptacle concave, sepals  
 4, petals 4.



- Ovary 2—3 celled. (*Commiphora*) **76 BURSERACEAE**.  
 Plants differing from *Commiphora* in one or more respects. 190
190. Trees with opposite or whorled, stipulate leaves and both  
 sepals and petals valvate or induplicate-valvate in the  
 bud. **109 RHIZOPHORACEAE**.  
 Leaves alternate or exstipulate or either sepals or petals or  
 both imbricate in the bud or herbs. 191.
191. Stamens numerous, all united. Anthers 1 celled. **95 MALVACEAE**.  
 Stamens free, or if united, then anthers 2 celled. 192.
192. Leaves opposite undivided exstipulate. Stamens numerous. **98 GUTTIFERAE**.  
 Leaves alternate or stipulate or stamens definite. 193.
193. Filaments united at least at the base. 194.  
 Filaments free or united in bundles. 196.
194. Sepals valvate in the bud. **96 STERCULIACEAE**.  
 Sepals imbricate in the bud. 195.
195. Stigmas 5. Herbs or undershrubs. **70 GERANIACEAE**.  
 Stigmas 1—3. Trees or shrubs. **77 MELIACEAE**.
196. Herbs with 5 lobed, 5 celled beaked ovary. Leaves stipulate. **70 GERANIACEAE**.  
 Trees or shrubs, or if herbs then ovary not 5 lobed, 5 celled  
 and beaked. 197.
197. Leaves simple stipulate, not gland dotted. Sepals valvate. **94 TILIACEAE**.  
 Leaves exstipulate, but sometimes with axillary spines. 198.
198. Leaves gland dotted. Flowers mostly regular. **75 RUTACEAE**.  
 Leaves not gland dotted. Flowers irregular or stamens fewer  
 than twice the petals. **89 SAPINDACEAE**.
199. (181) Stamens as many to twice as many as the petals. 200.  
 Stamens more than twice as many as the petals. 205.
200. Filaments free. 201.  
 Filaments united at least at the base. 203.
201. Leaves gland dotted exstipulate, but sometimes with axillary  
 spines. **75 RUTACEAE**.  
 Leaves stipulate but stipules sometimes small and caducous. 202.
202. Leaves opposite or whorled. (*Cunonia*). **63 CUNONIACEAE**.  
 Leaves alternate. **80 EUPHORBIACEAE**.
203. Flowers unisexual. **80 EUPHORBIACEAE**.  
 Flowers hermaphrodite. 204.
204. Sepals valvate in the bud united below. **96 STERCULIACEAE**.  
 Sepals imbricate in the bud. (*Oxalis*). **71 OXALIDACEAE**.

205. Leaves opposite exstipulate. (**Hypericum**). 98 GUTTIFERAE.  
 Leaves alternate stipulate. 206.
206. Anthers 1 celled. 95 MALVACEAE.  
 Anthers 2 celled. 207.
207. Filaments free. 94 TILIACEAE.  
 Filaments united. 96 STERCULIACEAE.
208. (180) Anthers 5 opening at apex united. Posterior sepal spurred. Succulent herbs. (**Impatiens**). 91 BALSAMINACEAE.  
 Flowers not as in **Impatiens**. 209.
209. "Water lilies" with large cordate or peltate, floating leaves, and numerous petals and stamens. (**Nymphaea**). 46 NYMPHAEACEAE.  
 Not water lilies as above. 210.
210. Herbs with usually trifoliate leaves, 10 stamens united at base, 5 alternate shorter, styles 5, ovary 5 lobed, 5 celled. (**Oxalis**). 71 OXALIDACEAE.  
 Flowers not as in **Oxalis**. 211.
211. Tree with pinnate leaves and ovate deciduous stipules. Calyx 5 parted deciduous, stamens 10, ovary 2 celled, styles 2 diverging, fruit 2 horned capsule separating from a central column. (**Cunonia**) 63 CUNONIACEAE.  
 Plants and flowers not as in **Cunonia**. 212.
212. Stamens fewer than twice as many as the petals. 213.  
 Stamens twice as many as petals or more. 218.
213. Calyx valvate in the bud. 214.  
 Calyx imbricate or open. 215.
214. Stamens united at base hypogynous. 96 STERCULIACEAE.  
 Stamens free perigynous. 107 LYTHRACEAE.
215. Leaves pellucid dotted aromatic alternate exstipulate. (**Heteropyxis**) 111 MYRTACEAE.  
 Leaves not pellucid dotted. 216.
216. Leaves opposite. (**Salacia**) 86 HIPPOCRATEACEAE.  
 Leaves alternate. 217.
217. Leaves pinnate. (**Melanthus**) 90 MELIANTHACEAE.  
 Leaves simple. 85 CELASTRACEAE.
218. (212) Filaments united in a tube at least at the base. 219.  
 Filaments free or united in several bundles. 221.
219. Anthers 1 celled. 95 MALVACEAE.  
 Anthers 2 celled. 220.
220. Sepals valvate. Leaves stipulate. 96 STERCULIACEAE.  
 Sepals imbricate in bud. Leaves exstipulate. 77 MELIACEAE.
221. Herbs with opposite entire exstipulate leaves and numerous stamens in 3—5 parcels (**Hypericum**) 98 GUTTIFERAE.  
 Not as in **Hypericum**. 222.

222. Petals and usually stamens perigynous. Leaves undivided. 223  
 Petals and stamens hypogynous. 224.  
 223. Anthers opening by 1—2 apical pores.

**112 MELASTOMACEAE.**

Anthers opening by 2 longitudinal slits. **107 LYTHRACEAE.**

224. Calyx with valvate aestivation. **94 TILIACEAE.**

Calyx with imbricate or open aestivation. 225.

225. Disc outside the stamens. **90 MELIANTHACEAE.**

Disc within the stamens. **75 RUTACEAE.**

226. (113) Stamens united in a tube. Anthers 1 celled.

**95 MALVACEAE.**

Stamens free or, if united, anthers 2 celled. 227.

227. Ovules 1 in each carpel. 228.

Ovules 2 or more in each carpel. 235.

228. Styles united below or throughout. 229.

Styles free or loosely cohering above. 230.

229. Leaves stipulate. Receptacle somewhat elongated.

**(Ochna) 97 OCHNACEAE.**

Leaves exstipulate. Receptacle forming a disc.

**89 SAPINDACEAE.**

230. Leaves opposite exstipulate. 231.

Leaves alternate (at least the lower) or all radical. 232.

231. Herbs usually fleshy, not climbing. **(Crassula).**

**60 CRASSULACEAE.**

Shrubs usually climbing. **(Clematis).**

**48 RANUNCULACEAE.**

232. Leaves stipulate. **67 ROSACEAE.**

Leaves exstipulate. 233.

233. Flowers unisexual. Sepals 6 or more.

**49 MENISPERMACEAE.**

Flowers hermaphrodite or, if not, then sepals 2—3. 234.

234. Stem woody. Leaves entire or toothed. Sepals 2—3.

**50 ANONACEAE.**

Stem herbaceous or woody below. **48 RANUNCULACEAE.**

235. (227) Leaves stipulate. 236.

Leaves exstipulate. 237.

236. Petals and stamens perigynous. **67 ROSACEAE.**

Petals and stamens hypogynous. **96 STERCULIACEAE.**

237. Sepals 2—3. Petals 3—6. Stamens 6—many.

**50 ANONACEAE.**

Sepals 4 or more, or if 3 then stamens 3. 238.

238. Stem herbaceous. Ovules usually numerous.

**60 CRASSULACEAE.**

Stem woody throughout. Ovules 2. 239.

239. Stamens 10. Climber. **(Cnestis). 68 CONNARACEAE.**

Stamens 3—5. Trees. **(Fagara). 75 RUTACEAE.**

240. (111) Herbs with long stems and tendrils. Flowers unisexual, regular, or nearly so. Fruit a berry or gourd.

**145 CUCURBITACEAE.**

Plants or flowers not as above. 241.

241. Ovules not distinct from placenta. Parasites on trees and shrubs. **37 LORANTHACEAE.**

Ovules distinct. Not parasites. 242.

242. Mangrove trees with vivipary growing in brackish water.

**109 RHIZOPHORACEAE.**

Not mangroves. 243.

243. Ovary 1 celled, sometimes incompletely chambered. 244.

Ovary 2 or more celled, rarely 2 or more distinct ovaries. 250.

244. Ovule 1. **116 UMBELLIFERAE.**

Ovules 2 or more. 245.

245. Ovules basal or on a free central placenta. 246.

Ovules apical or on a parietal placenta. 248.

246. Sepals 2. **(Portulaca). 44 PORTULACACEAE.**

Sepals 4—8. 247.

247. Stamens numerous. Petals 5, ovules 2. Leaves alternate stipulate. **67 ROSACEAE.**

Stamens as many or twice as many as petals. 248a.

- 248a. Leaves exstipulate. Stamens twice as many as petals.

**112 MELASTOMACEAE.**

Leaves stipulate. Stamens as many as petals. **(Pleurostyliia).**

**85 CELASTRACEAE.**

248. Ovules apical. Trees or shrubs. **110 COMBRETACEAE.**

Ovules parietal. 249.

249. Ovary inferior. Fleshy almost leafless plants.

**104 CACTACEAE.**

Ovary half inferior. Leafy trees and shrubs.

**100 FLACOURTIACEAE.**

250. (243) Ovules solitary in each ovary cell. 251.

Ovules 2 or more in each ovary cell. 261.

251. Ovules erect or ascending. 252.

Ovules pendulous or descending. 254.

252. Stamens 10 or more. **67 ROSACEAE.**

Stamens 4—5. 253.

253. Stamens alternating with petals. **85 CELASTRACEAE.**

Stamens opposite petals. **92 RHAMNACEAE.**

254. Ovary 2 celled. 255.

Ovary 3 or more celled. 260.

255. Style 1, stigma 1. Flowers 4-merous. 256.

Style with 2—4 stigmas or styles 2—3. 257.

256. Flowers unisexual in cymes. Trees or shrubs, leaves opposite.

**(Cornus). 117 CORNACEAE.**

Flowers hermaphrodite solitary. Herbs. **(Trapa).**

**113 OENOTHERACEAE.**



257. Fruit capsular, or if dicoccus then ovary half inferior and leaves small and heath like. Leaves simple undivided. 258.  
Fruit a schizocarp, or rarely a nut or drupe. Leaves usually either compound or deeply divided. 259.

258. Leaves stipulate. Flowers unisexual. (*Trichocladus*).

**66 HAMAMELIDACEAE.**

Leaves exstipulate. Flowers hermaphrodite. (*Berardia*).

**65 BRUNIACEAE.**

259. Fruit a schizocarp, rarely a nut and then as usually stem herbaceous. Epigynous disc usually 2 parted.

**116 UMBELLIFERAE.**

Fruit a drupe or nut. Stem woody throughout..

**115 ARALIACEAE.**

260. (254) Leaves compound or more or less deeply divided.

**115 ARALIACEAE.**

Leaves simple undivided coarsely toothed. (*Curtisia*).

**117 CORNACEAE.**

261. (250) Ovules 2—4 in each ovary cell. 262.

Ovules more than 4 in each ovary cell. 266.

262. Stamens as many as petals or fewer. 263.

Stamens twice as many as petals or more. 264.

263. Stamens opposite petals. Leaves opposite exstipulate.

(*Olinia*) **105 OLINIACEAE.**

Stamens alternating with petals. Leaves stipulate.

**85 CELASTRACEAE.**

264. Leaves stipulate. Style or stigmas 2—5. **67 ROSACEAE.**

Leaves exstipulate, style 1, stigma 1. 265.

265. Leaves opposite gland dotted. **111 MYRTACEAE.**

Leaves alternate. (*Barringtonia*) **108 LECYTHIDACEAE.**

266. (261) Water lilies. (See 209). (*Nymphaea*).

**46 NYMPHAEACEAE.**

Not water lilies. 267.

267. Herbs with petals and stamens, both very numerous. Capsules opening at top. Leaves usually opposite, thick and fleshy.

(*Mesembrianthemum*) **43 AIZOACEAE.**

Not as described for *Mesembrianthemum*. 268.

268. Herbs with monoecious flowers. Male with many stamens. Female with a 3-winged perianth tube adnate to ovary, and a 4—9 parted coloured limb. (*Begonia*).

**103 BEGONIACEAE.**

Plants not as described for *Begonia*. 269.

269. Styles 2. Flowers small green. Shrub with entire alternate leaves. (*Choristylis*) **61 SAXIFRAGACEAE.**

Style 1 with 1 or more stigmas. 270.

270. Stamens as many or twice as many as petals. 271.

Stamens more than twice as many petals. 274.

271. Sepals valvate in bud. Stamens twice as many as petals, rarely as many, and then leaves with small stipules.  
Anthers opening by longitudinal slits.

**113 OENOTHERACEAE.**

Sepals imbricate or open, or if valvate then stamens as many as petals or leaves without stipules, or anthers opening by apical pores. 272.

272. Leaves opposite or whorled. 112 MELASTOMACEAE.  
Leaves alternate. 273.

273. Stem herbaceous or woody at base.

**146 CAMPANULACEAE.**

Stem woody throughout.

**85 CELASTRACEAE.**

274. Leaves alternate. (*Barringtonia*) 108 LECYTHIDACEAE.  
Leaves opposite gland dotted. 111 MYRTACEAE.

275. (30) Stamens numerous united in a tube. Anthers 1 celled.

**95 MALVACEAE.**

Stamens free, or if united, then not numerous or 2-celled. 276.

276. Shrubs with ericoid leaves. Flowers 4-merous. Stamens usually 8, ovary 4-celled, rarely 8 celled.

**118 ERICACEAE.**

Not as for *Ericaceae*.

277.

277. Anthers adhering to a central style. Pollen in pollen masses.  
Corona usually present. Juice milky. Carpels 2.

**128 ASCLEPIADACEAE.**

Not as in *Asclepiadaceae*.

278.

278. Style thickened at apex (sometimes 2 lobed), bearing the stigmas on the under surface of the thickened part.  
Anthers sometimes adhering to style, but filaments free.  
Juice milky, mostly trees and shrubs.

**127 APOCYNACEAE.**

Not as in *Apocynaceae*.

279.

279. Ovary superior or nearly so. 280.  
Ovary inferior to half inferior. 346.  
280. Herbs with 10 stamens united at base, the 5 alternate shorter. Ovary 5 lobed, 5 celled. Styles 5. (*Oxalis*).

**71 OXALIDACEAE.**

Not as for *Oxalis*.

281.

281. Ovary 1. 282.  
Ovaries 2 or more, more or less distinct. 342.  
282. Ovary 1 celled. 283.  
Ovary 2 or more celled. 305.  
283. Ovule 1. 284.  
Ovules 2 or more. 287.  
284. Styles or style branches 5. Stamens 5 opposite petals.

**121 PLUMBAGINACEAE.**

Style 1.

285.

285. Stamens inserted at base of corolla. **41 NYCTAGINACEAE.**  
 Stamens inserted at or above middle of corolla. 286.
286. Stamens fewer than corolla divisions 4.  
**131 VERBENACEAE.**  
 Stamens as many as divisions of corolla.  
**40 AMARANTACEAE.**
287. Ovules attached to 1 parietal placenta or stamens more than corolla lobes.  
**69 LEGUMINOSAE.**  
 Ovules attached to 2 or more parietal placentas or stamens as many as corolla lobes or fewer. 288.
288. Ovules 2. 289.  
 Ovules 3 or more. 291.
289. Stamens opposite corolla lobes. (*Waltheria*).  
**96 STERCULIACEAE.**  
 Stamens alternating with corolla lobes. 290.
290. Ovules erect. Style 2 parted, or if simple then herbs.  
**129 CONVULVULACEAE.**  
 Ovules pendulous. Style simple or wanting, shrubs or trees.  
**88 ICACINACEAE.**
291. Ovules basal or on a free central placenta. 292.  
 Ovules parietal. 297.
292. Style 3 cleft. Sepals 2. (*Portulaca*).  
**44 PORTULACACEAE.**  
 Style simple or 2 cleft. 293.
293. Stamens as many as and opposite corolla lobes. 294.  
 Stamens fewer than or alternating with corolla lobes. 295.
294. Fruit a capsule. Herbs or undershrubs.  
**120 PRIMULACEAE.**  
 Fruit a nut berry or drupe. Leaves alternate, gland dotted.  
**119 MYRSINACEAE.**
295. Stamens 5. Flowers regular. **129 CONVULVULACEAE.**  
 Stamens 2 or 4. 296.
296. Herbs. Leaves alternate or radical. Stigma sessile.  
**139 LENTIBULARIACEAE.**  
 Leaves opposite or whorled. Style present.  
**131 VERBENACEAE.**
297. (291) Style 3—10 cleft. Flowers unisexual or polygamous.  
**102 ACHARIACEAE.**  
 Style 1 or 2 cleft. 298.
298. Fertile stamens fewer than corolla lobes 1—4. 299.  
 Fertile stamens, as many as or more than corolla lobes. 301.
299. Fertile stamen 1. Staminodes 3. Herbs. Leaves opposite.  
**126 GENTIANACEAE.**  
 Fertile stamens 2 or 4. 300.

300. Fertile stamens 2. Herbs. (*Streptocarpus*). 138 GESNERACEAE.  
Fertile stamens 4. Trees or shrubs. 136 BIGNONIACEAE.  
301. Stamens as many as corolla lobes. 302.  
Stamens more than corolla lobes. 304.  
302. Leaves alternate. Tree. (*Pittosporum*). 62 PITTOSPORACEAE.  
Leaves opposite or whorled, or if not, then herbaceous. 303.  
303. Stem woody. Leaves opposite or whorled, usually stipulate.  
Flowers 4-merous. 125 LOGANIACEAE.  
Stem herbaceous or, if not, flower 5-merous. Leaves ex-  
stipulate. 126 GENTIANACEAE.  
304. Sepals 4—5. Corolla lobes 4—5. Stamens 8—10. 77 MELIACEAE.  
Sepals 3, corolla lobes 6, stamens numerous. 50 ANONACEAE.  
305. (282) Corolla scarious regular, 4 lobed. Stamens 4, stigma 1. 141 PLANTAGINACEAE.  
Corolla more or less irregular, or if regular, stamens 2 or  
stigmas 2. 306.  
306. Ovary 2 celled. 307.  
Ovary 3 or more celled. 326.  
307. Ovules solitary in each ovary cell. 308.  
Ovules 2 or more in each ovary cell. 314.  
308. Fertile stamens 2 or 4. 309.  
Fertile stamens 5 or more. 312.  
309. Corolla regular, stamens 2. 124 OLEACEAE.  
Corolla more or less irregular. 310.  
310. Leaves alternate, at least the upper ones. 135 SELAGINACEAE.  
Leaves opposite or whorled. 311.  
311. Seeds borne on a hook like outgrowth of the funicle. 140 ACANTHACEAE.  
Seeds not on a hook like outgrowth of funicle. 131 VERBENACEAE.  
312. Flowers irregular. 79 POLYGALACEAE.  
Flowers regular or nearly so. 313.  
313. Flowers unisexual. 80 EUPHORBIACEAE.  
Flowers hermaphrodite. 122 SAPOTACEAE.  
314. (307) Flowers irregular. Seeds borne on a hook like out-  
growth of funicle. 140 ACANTHACEAE.  
Seeds not borne on a hook like outgrowth of funicle. 315.  
315. Trees and shrubs. Leaves opposite stipulate or connected by  
transverse lines or ridges. Flowers often nearly regular.  
Stamens 4—6, as many as petals. 125 LOGANIACEAE.  
Not as for *Loganiaceae*. 316.



316. Stamens 10—30. Tree. (Euclea). 123 EBENACEAE.  
 Stamens less than 10. 317.
317. Flowers regular or nearly so. 318.  
 Flowers more or less irregular. 324.
318. Leaves opposite, or whorled, or compound, or stamens 2. 319.  
 Leaves alternate, usually simple. Stamens more than 2. 321.
319. Corolla contorted. Ovules numerous. 126 GENTIANACEAE.  
 Corolla valvate or imbricate, but not contorted. 320.
320. Stamens 2. Not epiphytic. 124 OLEACEAE.  
 Stamens 5. Epiphytic on trees. (Dermatobotrys).
- 134 SCROPHULARIACEAE.
321. Ovules 2 in each ovary cell. 129 CONVULVACEAE.  
 Ovules more than 2 in each ovary cell. 322
322. Tufted, usually submerged aquatic. (Limnanthemum). 126 GENTIANACEAE.  
 Not aquatic. 323.
323. Stamens free from corolla. (Lightfootia). 146 CAMPANULACEAE.  
 Stamens attached to corolla. SOLANACEAE.
324. Fruit 2 horned or its cells incompletely divided by false  
 septa. Lower leaves often opposite. Plants with glandular  
 hairs. Endosperm scanty. 137 PEDALIACEAE.  
 Not as for Pedaliaceae. 325.
325. Leaves simple. Seeds endospermic. 134 SCROPHULARIACEAE.  
 Leaves compound, seeds exendospermic. 136 BIGNONIACEAE.
326. (306) Ovule 1 in each ovary cell. 327.  
 Ovules 2 or more in each ovary cell. 334.
327. Stamens as many as, and alternating with, corolla lobes or  
 fewer. 328.  
 Stamens as many as, and opposite corolla lobes, or more. 332.
328. Flowers unisexual regular. Petals united only at base.  
 Tree. (Ilex). 84 AQUIFOLIACEAE.  
 Flowers hermaphrodite, rarely polygamous. 329.
329. Corolla with valvate or folded aestivation. 129 CONVULVACEAE.  
 Corolla imbricate or contorted. 330.
330. Stamens as many as corolla lobes. Leaves usually alternate.  
 Flowers more or less regular. 130 BORRAGINACEAE.  
 Stamens usually fewer than corolla lobes. Leaves usually  
 opposite. 331.
331. Ovary deeply divided. Fruit dry. 132 LABIATAE.  
 Ovary entire, or if not, fruit succulent. 131 VERBENACEAE.

332. Style 1 undivided. **122 SAPOTACEAE.**  
 Styles 2 or more. 333.
333. Leaves exstipulate. Trees or shrubs. **123 EBENACEAE.**  
 Leaves stipulate or, if not, herbs or undershrubs.  
**80 EUPHORBIACEAE.**
334. (326) Ovules 2 in each ovary cell. 335.  
 Ovules 3 or more in each ovary cell. 338.
335. Stamens as many as, and alternating with, corolla lobes or fewer. 336.  
 Stamens as many as, and opposite, corolla lobes or more. 337.
336. Tree. Flowers unisexual. (*Ilex*). **84 AQUIFOLIACEAE.**  
 Herbs or climbers. Flowers hermaphrodite.  
**129 CONVULVULACEAE.**
337. Style 1, undivided. **77 MELIACEAE.**  
 Styles 2—8, free or partly united. **123 EBENACEAE.**
338. Stamens numerous, or, if 5, then opposite corolla lobes. 339.  
 Stamens 4—5; if 5, then alternating with corolla lobes. 340.
339. Herb. Corolla with many divisions, styles 5. (*Orygia*).  
**43 AIZOACEAE.**  
 Corolla of 5 divisions. **96 STERCULIACEAE.**
340. Stamens 5. **133 SOLANACEAE.**  
 Stamens 4. 341.
341. Stigma 1. (*Bowkeria*). **134 SCROPHULARIACEAE.**  
 Stigmas 2. **137 PEDALIACEAE.**
342. (281) Style 1. 343.  
 Styles 2 or more entirely free. 344.
343. Fertile stamens 2 or 4. Flowers irregular. **132 LABIATAE.**  
 Stamens 5. Flowers more or less regular.  
**130 BORRAGINACEAE.**
344. Styles 2. **129 CONVULVULACEAE.**  
 Styles 3 or more. 345.
345. Sepals 2—3. **50 ANONACEAE.**  
 Sepals 4 or more. **60 CRASSULACEAE.**
346. (279) Parasites on trees or shrubs. Ovules not distinct.  
**37 LORANTHACEAE.**  
 Not stem parasites. Ovules distinct. 347.
347. Herbs with long stems and tendrils. Flowers unisexual,  
 regular or nearly so. Fruit a berry or gourd.  
**145 CUCURBITACEAE.**  
 Not as in **Cucurbitaceae.** 348.
348. Stamens 3 free. Vlei herb with pinnate leaves. Flowers in  
 cymes. (*Valeriana*) **143 VALERIANACEAE.**  
 Not as for **Valeriana.** 349.
349. Sepals 2. Petals 4—6. Slightly connate at base. Stamens 8  
 or many. Ovary many ovuled. (*Portulaca*).  
**44 PORTULACACEAE.**

- Not as for **Portulaca**. 350.
350. Leaves opposite or whorled, stipulate. Stipules interpetiolar.  
Stamens free, as many as petals. Ovary usually 2 or more  
celled. **142 RUBIACEAE.**  
Leaves alternate, or if opposite, not with interpetiolar stipules. 351.
351. Ovary 1 celled. 352.  
Ovary 2 or more celled. 356.
352. Ovule 1. Flowers usually in heads. 353.  
Ovules more than 1. 354.
353. Stamens 2 or 4 free. **144 DIPSACEAE.**  
Stamens 5. Anthers united. **148 COMPOSITAE.**
354. Succulent leafless plant, with numerous stamens. (**Rhipsalis**).  
**104 CACTACEAE.**  
Stamens 5. Leafy plants. 355.
355. Sea shore herb. (**Samolus**). **120 PRIMULACEAE.**  
Shrubs or trees. (**Maesa**). **119 MYRSINACEAE.**
356. Ovules 1 in each ovary cell. 357.  
Ovules 2 or more in each ovary cell. 358.
357. Corolla irregular. Strand plant. Leaves large, fleshy.  
(**Scaevola**). **147 GOODENIACEAE.**  
Corolla regular. Leaves small. (**Berardia**).  
**65 BRUNIACEAE.**
358. Stamens as many as or fewer than corolla lobes.  
**146 CAMPANULACEAE.**  
Stamens more than corolla lobes. 359.
359. Petals numerous. Herbs. (**Mesembrianthemum**).  
**43 AIZOACEAE.**  
Petals 3—6. Shrubs or trees. 360.
360. Petals united at base. Filaments united at base.  
**108 LECYTHIDACEAE.**  
Petals united. Filaments free or nearly so.  
**111 MYRTACEAE.**

## CYCADALES.

## FAMILY 1—CYCADACEAE.

Stems simple, rarely branched, woody with mucilaginous juice. Leaves large, pinnate. Male cones with large micro sporophylls bearing numerous pollen sacs on under surface. Female cones bearing large mega sporophylls each with 2 ovules (in S. African species). Seeds drupe like. 2 genera 8 species.

1. Leaf pinnae with parallel veins. **1. ENCEPHALARTOS.**

Leaf pinnae with a midrib and pinnate veins. **2 STANGERIA.**

**1. ENCEPHALARTOS** Lehm. "umNgqabe."

1. **altensteinii** Lehm. Fairly common in rocky places.

Coast and Midlands. Thorn Veld.

2. **brachyphyllus** Lehm. Ngoya, Zululand, 2-3,000 ft.

3. **caffer**, Miq. Midlands.

4. **ghellinckii** Lehm. Coast to Drakensberg.

5. **lehmannii** Lehm. Coast belt.

6. **longifolius** Lehm.

7. **villosus** Lehm. Coast belt.

8. **woodii** Sand. Zululand, rare.

**2. STANGERIA.** T. Moore. "im Fingo."

**paradoxa** Moore. Coast and Midlands. Fairly common.

## CONIFERAE.

## FAMILY 2—TAXACEAE.

Trees. Leaves alternate, undivided. Flowers dioecious. "Stamens" with 2—9 pollen sacs. "Carpels" free 1 ovuled. Seeds drupelike. 1 genus 3 species.

**PODOCARPUS** L'Herit. "Yellow wood."

1. **latifolia** (Thb) R. Br. Dominant in many forests. Midlands and Drakensberg. "umSonti."

2. **elongata** (Ait) L'Herit. Subdominant or dominant in many forests. Midlands and Drakensberg "umKoba."

3. **falcata** (Thb.) R.Br. Dominant in Southern Drakensberg forest.

## FAMILY 3—PINACEAE.

Stems woody. Leaves needle or scale like. "Stamens" with usually 2 pollen sacs underneath. Carpels with usually 2 ovules 1 genus 1 species.



**WIDDRINGTONIA** Endl. (*Callitris* Vent).

**draco-montana** Stapf. (*cupressoides* Endl.) Common along streams in Drakensberg.

**MONOCOTYLEDONEAE.****FAMILY 4—TYPHACEAE.**

Aquatic or marsh herbs with creeping rootstock and erect simple stems. Leaves linear sheathing. Flowers unisexual, without a perianth, but usually surrounded by hairs, arranged in dense cylindrical inflorescences. Stamens 2—7. Ovary 1 celled. Ovule 1 pendulous. Fruit dry. 1 genus 1 species.

**TYPHA.** Tourn.

**latifolia** L. subsp. **capensis** Rohrb. Common in marshes and along streams. Often mixed with sedges and **Phragmites**.

**FAMILY 5—POTAMOGETONACEAE.**

Aquatic herbs. Leaves with axillary scales. Flowers unisexual or hermaphrodite, regular. Perianth rudimentary or wanting. Stamens 1—4. Carpels several, rarely (**Zostera**) 1. Ovules 1 in each carpel. Fruit indehiscent. 3 genera 9 species.

1. Stamens 4. Anthers with sepal-like appendages.

**1 POTAMOGETON.**

Stamens 1.

2.

2. Carpel 1. Submerged marine plant.

**2 ZOSTERA.**

Carpels usually 4.

**3 ZANNICHELLIA.****1. POTAMOGETON...** Tourn.

1. **fluitans** Roth. subsp. **americanus** var **thunbergii**.

2. **crispus** L. Coastbelt and Midlands.

3. **mucronatus** Schrad. Coastbelt.

4. **javanicus** Hassk. Midlands.

5. **lucens** L. Coastbelt and Midlands.

6. **natans** L. Coastbelt.

7. **pusillus** L. Coastbelt.

**2. ZOSTERA** L.

**nana** Roth. Along seashore, usually near river mouths.

**3. ZANNICHELLIA** Mich.

**palustris** L. Coastbelt.

**FAMILY 6—APONOGETONACEAE.**

Aquatic herbs with tuberous rootstock and radical leaves. Flowers in 1—4 spikes connected at base, rising above the water. Perianth segments 1—3. Stamens 6 or more. Carpels 3—8 dis-

tinct. Ovules 2—8 in each carpel. Fruits dehiscent. 1 genus 2 species.

#### APONOGETON Thb.

1. **natalense** Oliv. Common all over.
2. **spathaceum** var **juncum**. Hk. f. Common in moist spots. All over. Mont Aux Sources, 9,500 ft.

### FAMILY 7—SCHEUCHZERIAACEAE.

Marsh herbs with linear radical leaves. Flowers in spikes regular, hermaphrodite. Perianth segments 6, green. Stamens 3—6. Ovary 3—6 celled. Ovule 1 in each cell. 1 genus 3 species.

#### TRIGLOCHIN L.

1. **bulbosum** L. Coast and Midlands.
2. **laxiflorum** Gass. Coastbelt. Mudflats.
3. **striatum** Ruiz and Pav. Coastbelt.

### FAMILY 8—HYDROCHARITACEAE.

Aquatic herbs. Leaves with axillary scales. Flowers, enclosed when young by 1 or 2 bracts, usually unisexual. Perianth simple or of calyx and corolla. Stamens 2—12. Ovary inferior 1 celled. Placentas parietal. Seeds exendospermic. 1 genus 1 species.

#### LAGAROSIPHON Harv.

- muscoides** Harv. var **major** Ridl. Swamps near Greytown.

### FAMILY 9—GRAMINEAE.

Grasses. Stems usually hollow. Leaves alternate in 2 rows, consisting of (a) a **sheath**, (b) a **blade**, and (c) a **ligule**, placed transversely between sheath and blade. Flowering axis is the **culm**. Main inflorescence a spike, a raceme or a panicle. Ultimate branch of inflorescence is the spikelet, consisting of an axis (the **rachilla**), which bears scalelike bracts. 2 lowest bracts are **glumes**, others are **valves** with flowers in their axils subtended behind by pales. Valves may be empty. Glumes or valves or both may be prolonged upwards into a short **muco** or longer **awn**. Flowers hermaphrodite or unisexual. Perianth of 2 **lodicules** (scales) or wanting. Stamens 3 (rarely 1 2 4 or 6). Anthers versatile. Ovary 1. Styles or stigmas 2 feathery. Fruit a **caryopsis**, rarely a **utricle**. Seed endospermic. 67 genera, 227 species.

1. Spikelets all sessile in the notches of a simple spike.

#### 65 LOLIUM.

- Spikelets not all sessile in the notches of a simple spike. 2.
2. Spikelets secund (all on one side of rachis). 3.
- Spikelets not secund. 17.

3. Spikelets falling entire. Lower glume smaller or 0.  
Glumes not keeled. 4.  
Lower glume persistent, distinct and keeled. Upper glume  
sometimes falling with the spikelet. 7.
4. Spikelets sunk in hollows or adpressed to the face of a broad  
rachis. Stem creeping. **19 STENOTAPHRUM.**  
Spikelets not sunk in hollows on a broad rachis. 5.
5. Lower glume distinct. **14 PANICUM.**  
Lower glume minute or 0. 6.
6. Nerves of lower valve 5—7 close straight and prominent.  
Lower glume minute. **13 DIGITARIA.**  
Nerves of lower valve 5 or fewer. Side nerves curved and  
usually submarginal. Lower glume absent. **12 PANICUM.**
7. Spikelets 1 flowered. No male or barren valves. 8.  
Spikelets 2 or more flowered or with 1 perfect flower and 1  
or more male flowers or empty valves. 9.
8. Glumes shorter than the glabrous valve. **42 CYNODON.**  
Glumes longer than the ciliate valve. **43 MICROCHLOA.**
9. Spikelets with 1 perfect and 1 or more male or barren flowers.  
10.  
Spikelets with 2 or more perfect flowers. 13.
10. More than one spike in the inflorescence. **46 CHLORIS.**  
Spike solitary. 11.
11. Spikelets awned. **44 CTENIUM.**  
Spikelets awnless. 12.
12. Upper glume much longer than the lower. **45 HARPECHLOA.**  
Lower glume slightly longer than the upper. **43 MICROCHLOA.**
13. False spikes numerous arranged spirally. 14.  
Spikes or false spikes solitary or umbelled. 16.
14. Valves minutely notched. **40 DIPLACHNE.**  
Valves entire. 15.
15. Tips of rachilla joints fringed with minute hairs. **39 POGONARTHRIA.**  
Tips of rachilla joints not fringed. **41 ERAGROSTIS.**
16. Spikes terminated by a spikelet. **47 ELEUSINE.**  
Point of rachis naked, projecting. **48 DACTYLOCTENIUM.**
17. Spikelets with 1 perfect floret, with or without 1 or more male  
or barren florets or empty valves **below** it. 18.  
Spikelets with 2 or more perfect florets or very rarely with  
only 1 perfect floret which has male or barren florets or  
empty valves **above** it. 53.
18. Spikelets in pairs usually one sessile the other pedicelled, the

- latter sometimes rudimentary. Lower glumes rigid and longer than the florets. 19.
- Spikelets either not in pairs, or if in pairs then the lowest glumes not rigid and shorter than the florets. 29.
19. Spikelets all alike or differing only in the lower glumes. 20.  
The two spikelets of each pair differing in sex and structure. 24.
20. Racemes in a panicle. 21.  
Racemes 2 nate, digitate, or fascicled. 23.
21. Spikelets awned. **3 ERIANTHUS.**  
Spikelets awnless. 22.
22. Panicle silky, spiciform. Rachis not fragile. **1 IMPERATA.**  
Panicle silky much branched. Rachis fragile. **2 SACCHARUM.**
23. The two spikelets of each pair alike. **4 POLLINIA.**  
The two spikelets of each pair differing in the lower glume. **5 ISCHAEMUM.**
24. Sessile spikelets sunk in hollows. 25.  
Sessile spikelets not sunk in hollows. 26.
25. All the spikelets awnless. **6 ROTTBOELLIA.**  
Pedicelled spikelets awned. **7 URELYTRUM.**
26. All the spikelets awnless. **9 ELIONURUS.**  
Spikelets not all awnless. 27.
27. 1—3 pairs of perfect and male spikelets subtended by a whorl of male or barren spikelets and the whole supported by a spathe. **II THEMEDA.**  
No whorl of male or barren spikelets at the base. 28.
28. Subsessile spikelets awnless. Pedicelled awned. **8 TRACHYPOGON.**  
Sessile spikelets awned. **10 ANDROPOGON.**
29. Blades transversely veined. Flowers unisexual. **66 OLYRA.**  
Blades not transversely veined. 30.
30. Glumes 0 or very minute. 31.  
Glumes 2, distinct or rarely lower glume absent and upper distinct. 32.
31. Two minute nerveless valves below floret. **52 POTAMOPHILA.**  
No empty valves. **53 LEERSIA.**
32. One or more empty valves or male florets below fertile floret. 33.  
A single fertile floret only. No empty valves. 45.
33. Two empty valves (sometimes minute) or 2 male or barren florets below the fertile floret. 34.  
One empty valve or male floret below the fertile floret. 36.
34. Lower valve awned dorsally. Awns kneed. **25 ANTHOXANTHUM.**



- Valves awnless or awned from the tip. Awns straight. 35.
35. Empty valves minute enclosed by the glumes. **55 PHALARIS.**  
At least one of the empty valves larger than the fertile. **54 EHRHARTA.**
36. Glumes not falling with the spikelet. 37.  
Spikelets falling entire with the glumes. 39.
37. Spikelets in clusters of three, large. **24 TRISTACHYA.**  
Spikelets solitary. 38.
38. Spikelets less than one-fifth inch. Upper valve minutely 2  
toothed or entire. **22 ARUNDINELLA.**  
Spikelets  $1/6$ th— $1\frac{1}{2}$  inches. Upper valve distinctly 2-toothed  
or 2 lobed. **23 TRICHOPTERYX.**
39. Spikelets subtended by bristles 1 or many. 40.  
Spikelets not subtended by bristles. 41.
40. Bristles persistent. **17 SETARIA.**  
Bristles falling with the spikelet. **18 PENNISETUM.**
41. Glumes or lower valve 2 lobed or emarginate, mucous or  
awned from the sinus. Lower glume minute or 0. 42.  
Glumes and lower valve entire awnless or awned.  
Lower glume distinct. 43.
42. Upper glume 5 nerved, tips obtuse. **20 TRICHOLAENA.**  
Upper glume 7 nerved, tips acute. **21 MELINIS.**
43. Glumes subequal with long viscous awns. **15 OPLISMENUS.**  
Glumes usually unequal, awnless or with short scabrid awns. 44.
44. Inflorescence of 2—5 stout racemes. **16 AXONOPUS.**  
Inflorescence a loose, rarely contracted panicle. **14 PANICUM.**
45. Glumes awned. 46.  
Glumes awnless or shortly mucronate. 47.
46. Valve 1 nerved. **36 PEROTIS.**  
Valve more than 1 nerved. **31 POLYPOGON.**
47. Valves awned. 48.  
Valves awnless. 51.
48. Awns of valve 3 or 3 branched. **34 ARISTIDA.**  
Awns of valve solitary. 49.
49. Nerves of valve closely approaching or joining at tip. **35 STIPA.**  
Awn kneed. 50.  
Nerves of valve parallel, not joining at tip. 50.
50. Valve decurrent into a callus which has hairs several times  
longer than the valve itself. **33 CALAMAGROSTIS.**  
Callus glabrous or minutely hairy. **32 AGROSTIS.**
51. Lower glume minute or 0. Upper glume with hooked spines  
or bristles. **37 TRAGUS.**  
Both glumes distinct without spines or bristles. 52.

52. Glumes subequal longer than floret. **34 AGROSTIS.**  
At least one of the glumes shorter than the floret.
53. Reed grasses. **38 SPOROBOLUS.**  
Not reed grasses. **30 PHRAGMITES.** 54.
54. Blades transversely veined. **67 ARUNDINARIA.**  
Blades not transversely veined. 55.
55. Upper 2 or 3 valves empty, enclosing each other forming a club or spindle-shaped body. **56 MELICA.**  
No club or spindle-shaped body. 56.
56. Valves 3 nerved. 57.  
Valves 5—11 nerved. 64.
57. Whole panicle dense, cylindrical and usually dark purple.  
Glumes, valves and pales equally hairy all over. **58 STIBURUS.**
- Glumes, valves and pales not all equally hairy. 58.
58. Valves awned or mucronate. 59.  
Valves awnless and not mucronate. 62.
59. Side nerves of valve excurrent into bristles. **51 TRIRAPHIS.**  
Side nerves of valve not excurrent into bristles. 60.
60. Spikelets distant by more than their own length. **50 CROSSOTROPIS.**  
Spikelets not distant by more than their own length. 61.
61. Valves 2-toothed. Awn from the back. **40 DIPLACHNE.**  
Valves minutely 4-toothed. Awn terminal. **49 LEPTOCARYDIUM.**
62. Side nerves of valve delicate and not submarginal. Florets 2 or 3 with uppermost reduced. Shorter than or not much longer than the glumes. **26 KOELERIA.**  
Side nerves of the valve submarginal. Florets usually numerous and far exserted from the glumes. 63.
63. Valve entire. **41 ERAGROSTIS.**  
Valve minutely notched or with 2 lateral teeth. **40 DIPLACHNE.**
64. Spikelets deciduous as a whole. Both glumes 1 nerved. **57 FINGERHUTHIA.**  
Spikelets breaking up, leaving glumes persistent. 65.
65. Valves awned from the back near the middle. **27 AVENASTRUM.**  
Valves awnless or, if awned, awn terminal or subterminal. 66.
66. Styles distinctly lateral on a hairy 2—3 lobed appendage of the ovary. Spikelets rather larger. **63 BROMUS.**  
No hairy 2—3 lobed appendage on top of the ovary. 67.
67. Valves 2 cleft or 2 lobed. 68.  
Valves entire or minutely bifid. 69.

68. Florets 2. **28 PENTASCHISTIS.**  
 Florets more than 2. **29 DANTHONIA.**
69. Valves awned. 70  
 Valves awnless. 73.
70. Valves 7—9 nerved. 71.  
 Valves 5 nerved. 72.
71. Spikelets subsessile in a simple raceme or false spike. **64 BRACHYPODIUM.**  
 Spikelets in open or contracted panicles. **61 FESTUCA.**
72. Glumes very unequal. Awn of valve long. **62 VULPIA.**  
 Glumes not very unequal. Awn of valve short. **61 FESTUCA.**
73. Valves broadly cordate, boat shaped. **59 BRIZA.**  
 Valves not broadly cordate, boat shaped. 74.
74. Valve nerves usually distinct. Hilum of seed linear. **61 FESTUCA.**  
 Valve nerves usually faint. Hilum of seed punctiform.  
 Glumes and valves keeled. Florets often with a tuft of  
 wool at the base. **60 POA.**
1. **IMPERATA** Cyr. "umTente."  
*arundinacea* Cyr. In vleis and moist sand. All over South  
 Africa.
2. **SACCHARUM** L.  
*munroanum* Hack. Vleis. Rather rare.
3. **ERIANTHUS** Mich. "umTala."  
 1. *capensis* Nees. A very tall, common vlei grass.  
 2. *sorghum* Nees. Much rarer. Vlei species.  
 3. *junceus* Stapf. Drakensberg.
4. **POLLINIA** Trin.  
 1. *villosa* Spreng. Common in coast belt grassland.  
 2. *nuda* Trin. Shade-loving rambling forest species.
5. **ISCHAEMUM** L.  
 1. *fasciculatum* Brogn var *arcuatum* Hack. Coastbelt  
 scrub and vleis:  
 2. *franksae* J. M. Wood. Rare mountain species. Tabam-  
 hlope.
6. **ROTTBOELLIA** Lf.  
*compressa* Lf. var *fasciculata* Hack. Vleis and stream-  
 banks.
7. **URELYTRUM** Hack.  
*squarrosus* Hack. High veld. Common. Coast veld  
 rare.
8. **TRACHYPOGON** Nees. "isiTupe."  
*polymorphus* Hack, var *capensis* Hack. High veld. Common

9. **ELIONURUS** Humb and Bonpl.

**argenteus** Nees. Common (sometimes dominant) in High veld.

10. **ANDROPOGON** L. (including **Sorghum** Pers. **Heteropogon** Pers and **Cymbopogon** Spreng).

1. **amplectens** Nees. High veld. Common. "uCebe."

2. **appendiculatus** Nees. Mountain regions chiefly. Rare elsewhere.

3. **auctus** Stapf. Midland High veld. "uQunga." "Popo."

4. **buchanani** Stapf. Midlands. Not very common.

5. **ceresiaeformis** Nees. Subdominant in much of High veld. "umYakazane."

6. **contortus** L. Mountain and Midland High veld. "isi Tupe."

7. **cymbarius** L. High veld. Forest margins, etc.

**cymbarius** var **lepidus** Stapf. Moist places.

8. **dichroos** Steud. Midlands. Not common

9. **distachyus** L. Midlands. Not common.

10. **dregeanus** Nees. A common Tambookie grass. Forest areas.

11. **eucomus** Nees. Coast veld and Low veld. Common.

12. **filifolius** Steud. High veld. Rather rare.

13. **filipendulus** Hockst. Coast veld. "isiBusana."

14. **halepensis** Brot. var **effusus** Stapf. Vleis also ruderal.

15. **hirtiflorus** Kunth. Coast belt and Zululand. Fairly common.

16. **hirtus** L. Common all over. "in Tunga."

17. **intermedius** R.Br. var **punctatus** Hack. High veld. "umNcele."

18. **nardus** L. var **marginatus** Hack. Common in High veld.

**nardus** var **prolixus** Stapf. Also common in moister veld. "uQungu."

**nardus** var **validus** Stapf. Also common in moister veld.

19. **pertusus** Willd. Midlands. "umNcele" or "imButane."

**pertusus** var **capensis** Hack. Chiefly ruderal.

20. **plurinodis** Stapf. Midlands. Another Tambookie.

21. **rufus** Kth. Coast and Midlands in moist places, not common.

22. **ruprechtii** Hack. Zululand.

23. **schimperi** Hockst.

24. **schlechteri** Hack. Coastbelt rare.

25. **schoenanthus** L. var **versicolor** Hack. Low veld common.

26. **schirensis** Hockst var **angustifolia** Stapf. High veld and mountains. Common.



27. **sorghum** Brot. Kaffir corn. "Imfe," "Amabele," etc.  
Cultivated by natives. Numerous varieties.
28. **transvaalensis** Stapf. Near Dundee. 4-5,000 feet.
11. **THEMEDA** Forsk. (*Anthistiria* L.f.)  
**triandra** Forsk. (*Anthistiria imberbis* Retz). (Rooi gras),  
the most important grass in Natal. Dominant over  
both High and Low veld. "inSinde."  
var **mollissima** Hack. Common.  
var **burchellii** Hack. Common.  
var **glauca** Hack. Dominant in Low veld.
12. **PASPALUM** L.  
1. **scrobiculatum** L. Common weed "isAmuyisane."  
2. **distichum** L. Vlei species.  
3. **dilatatum** Poir. Cultivated for fodder.
13. **DIGITARIA** Rich. "umFeca."  
1. **debilis**. Annual. Not very common.  
2. **diagonalis** Stapf. High veld. Common. "uGoba."  
3. **diversinervis** Stapf. Coastbelt and Zululand.  
4. **eriantha** Steud. Midland High veld. Common. "isi-Konko."  
5. **flaccida** Stapf. Mountain High veld.  
6. **horizontalis** Willd. Common ruderal.  
7. **monodactyla** Stapf. High veld. Fairly common.  
8. **sanguinale** Scop. Common ruderal.  
9. **setifolia** Stapf. High veld and mountains.  
10. **tenuiflora** Beauv. Coastbelt and Midlands.  
11. **ternata** Stapf. Common early flowering ruderal.  
12. **tricholaenoides** Stapf. High veld, fairly common.
14. **PANICUM** L.  
1. **aequinerve** Nees. Coastbelt scrub and forest margins.  
2. **arrectum** Hack. Ruderal. Coast and Midlands.  
3. **brizanthum** Ockst. Ruderal. Coast and Midlands.  
4. **capillare** L. Midlands.  
5. **chusqueoides** Hack. Coast scrub and forest margins.  
6. **colonum** L. Coast belt.  
7. **coloratum** L. Coastbelt.  
8. **crus-galli** L. Ruderal. Coast and Midlands.  
9. **crus-pavonis** Nees var **rostratum** Stapf. Vleis.  
10. **curvatum** L. Coastbelt.  
11. **deustum** Thb. Vleis.  
12. **dregeanum** Nees. Grassveld species. Coastbelt.  
13. **ecklonii** Nees. Mountain grassveld species.  
14. **filiculme** Hack. Coast scrub and forest margins.  
15. **gossypinus** A Rich. Near Dundee 4-5,000 feet.  
16. **helopus** Trin var **glabrescens** K. Schum. Ruderal.  
17. **hymeniochilum** Nees. Coast scrub and forest margins.

18. **interruptum** Willd. Vleis.
19. **isachne** Roth. Ruderal. Common all over. "umFisane."
20. **laevifolium** Hack. Ruderal. High veld. Late flowering.
21. **laticomum** Nees. Coast bush, in shade.
22. **maximum** Jacq. Coastbelt and Midlands. Common  
"uBabe."
23. **meyerianum** Nees. Coast and Midlands. Bush.
24. **miliaceum** L. Mooi River 3-4,000 feet.
25. **miliare** Lam. Coastbelt. Probably introduced.
26. **natalense** Hockst. High veld and mountain grassveld  
species. "uMashamyana."
27. **perluxum** Stapf. Coast scrub and forest margins.
28. **proliferum** Lam. var **longijubatum** Stapf. Ruderal.  
**proliferum** var **paludosum** Stapf. Vleis, coastbelt.
29. **pyramidale** Lam. Vlei species. Coastbelt.
30. **schlechteri** Hack. Near Hilton. 3-4,000 feet.
31. **serratum** Spreng. Grassveld species, fairly common.
32. **stagninum** Koen. Midland vleis.
33. **trichopus** Hochst. Ruderal.
34. **tunicatum** Hack. Estcourt.
35. **zizanioides** H.B.K. Coast scrub and forest margins.
15. **OPLISMENUS** L. "u Benyane."  
**africanus** Beauv. Shade loving forest species.  
**africanus** var **simplex** Stapf. Inanda. "umBambalele."
16. **AXONOPUS** (Beauv.) Hk.f. "isi Nosa."  
**semialatus** Hk. Grassveld. Common in spring.  
**semialatus** var **ecklonii** Stapf.
17. **SETARIA** Beauv.  
1. **aurea** Braun. Vleis common, often dominant.  
2. **gerrardi** Stapf. Vleis and moist grassveld.  
3. **imberbis** R. and S. Vleis. Common.  
4. **lindenberghiana** Stapf. Scrub and forest, not abundant.  
5. **nigrirostis**. Dur and Schinz. Vleis and moist grassveld.  
6. **perennis** Hack. Grassveld. Common.  
7. **rigida** Stapf. Vleis.  
8. **sulcata** Raddi. Scrub and forest margins, very common.  
"uHlongo Hlongo."  
9. **verticillata** Beauv. Ruderal and vleis.
18. **PENNISETUM**. Pers.  
1. **macrourum** Trin. Not common.  
2. **natalense** Stapf. Vleis.  
3. **sphacelatum** Dur. and Schinz. Mountain species.  
4. **thunbergii** Kth. Vleis common.  
5. **typhoideum** Rich. Cultivated by the natives.  
6. **unisetum** Bth. Vleis and stream banks.
19. **STENOTAPHRUM** Trin. "uNgwengwe."  
**glabrum** Trin. Moist sandy coast flats and on the coast

sand dunes near sea. Often dominant. Also used for making lawns.

20. **TRICHOLAENA** Schrad.

1. *glabra* Stapf. Tugela valley. Rare.
2. *rosea* Nees. "Natal Red Top grass." Abundant as a ruderal. Often dominant in waste cultivated land from coast to Drakensberg. "umKuana."
3. *setifolia* Stapf. Grassveld. Fairly common in High Veld.

21. **MELINIS**. Beauv.

*minutiflora* Beauv. var *pilosa* Stapf. Midlands. Rare.

22. **ARUNDINELLA** Raddi. "umTshuma."

*ecklonii* Nees. Vleis and margins of bush. Common.

23. **TRICHOPTERYX** Nees.

1. *dregeana* Nees. Common along streams.
2. *simplex* Hack. Grassveld. "inSindeboia."  
*simplex* var *crinita* Stapf. Common in grassveld.
3. *stipoides* Hack. var *natalensis* Hack. Karkloof.

24. **TRISTACHYA** Nees.

*leucothrix* Trin. High veld and Low veld. Common.

25. **ANTHOXANTHUM** L.

*ecklonii* Stapf. Mountain veld.

26. **KOELERIA** ers.

*cristata* Pers. Chiefly mountain veld.

27. **AVENASTRUM** Juss.

1. *caffrum* Stapf var *natalense* Stapf. Rare mountain species.
2. *turgidulum* Stapf. Mountain grassveld, fairly common.  
"umTepa."

28. **PENTASCHISTIS** Stapf.

*natalensis* Stapf. Mountain grassveld.

29. **DANTHONIA** Dc.

sp. near *macowani* Stapf. Upper Tugela, near Mont Aux Sources.

30. **PHRAGMITES**. Trin.

*communis* Trin. Dominant along streams. Abundant.

31. **POLYPOGON** Desf.

*monspeliensis* Desf. Vleis.

32. **AGROSTIS**.

1. *lachnantha* Nees. Vleis common all over.
2. *natalensis* Stapf. Umpumula. Rare.
3. *phalaroides* Hack. Near Howick.
4. *suavis* Stapf. Dominant in patches of grassveld around Van Reenen.

33. **CALAMAGROSTIS** Roth.

*huttoniae* Hack. Midlands. Not common.

34. **ARISTIDA** L.

1. *aequiglumis* Hack. Midlands. Not very common.

2. **angustata** Stapf. Midlands. Common pioneer species.
  3. **atroviolacea** Hack. Newcastle.
  4. **barbicollis** Trin and Rupr. Midlands. Common pioneer.
  5. **bipartita** Rupr. and Trin. Common in Low veld.
  6. **congesta** Roem and Schult. Midlands.
  7. **junciformis** Trin. and Rupr. Common pioneer, "in Gongoni."
  8. **sciurus** Stapf.
  9. **vestita** Thb. Midlands.
  10. **adscensionis** L. In waste land, possibly introduced into Natal.
35. **STIPA** L.  
**dregeana** Steud. Midland Bush.
36. **PEROTIS** Ait.  
**latifolia** Ait. Coast to Drakensberg, but commonest on coastbelt.
37. **TRAGUS** Haller.  
**racemosus** All. Open rocky hillsides.
38. **SPOROBOLUS** R. Br.  
 1. **centrifugus** Nees. Open hillsides. Chiefly mountain veld.  
**centrifugus** var **angustata**. Mountain veld.  
 2. **festivus** Hochst var **stuppeus** Stapf. Tussock forming, Low veld species.  
 3. **indicus** R. Br. Important pioneer. Also ruderal.  
**indicus** var **laxus** Stapf. Dominant in primitive Low veld. "umSingizane."  
 4. **pungens** Kunth. Seashore only. Dominant in patches.  
 5. **rehmanni** Hack. Coastbelt.  
 6. **subtilis** Kth. Coastbelt.
39. **POGONARTHRIA** Stapf.  
**falcata** Rendle. Chiefly coastbelt.
40. **DIPLACHNE** Beauv.  
 1. **fusca** Beauv. Vleis and stream banks.  
 2. **biflora** Hack. High veld. Pioneer species.  
 3. **eleusine** Nees. Stream banks.  
 4. **triflora** Hack. Zululand.
41. **ERAGROSTIS** Beauv.  
 1. **aspera** Nees. Chiefly ruderal.  
 2. **atherstonei** Stapf. Rocky places. Rare.  
 3. **brizoides** Nees. Common in grassveld. "umBimbane."  
 4. **brownei** Nees. Near Durban.  
 5. **caesia** Stapf. Grassveld. Not very common.  
 6. **ciliaris** Link. Coastbelt only. Common on dunes.  
 7. **chalcantha** Trin. Important pioneer in grassveld.  
 8. **chapelieri** Nees. Coast and Midlands. Not common.  
 "maTohlwane."



9. **chloromelas** Steud. Common pioneer, early spring.
10. **curvula** Nees. Very common pioneer all over.  
"umRrepurrepu."  
**curvula** var **valida** Stapf. Very common all over.
11. **gangetica** Steud. Coast and Midlands.
12. **gummiflua** Nees. Midland grassveld.
13. **heteromera** Stapf. Coastbelt chiefly.
14. **hornemanniana** Nees. Coastbelt rare.
15. **lappula** Nees. Coast and Midlands. Grass veld.
16. **major** Hockst. Chiefly ruderal.
17. **namaquensis** Nees var **robusta** Stapf. Vleis and stream banks and coast sand dunes.
18. **natalensis** Hack. Drakensberg.
19. **nèbulosa** Stapf. Vleis, often dominant.
20. **patentissima** Hack. Midlands, not common.
21. **pilosa** Beauv. Coastbelt.
22. **plana** Nees. Common "umTshiki."
23. **superba** Peyr. Mostly in vleis.
24. **plumosa** Link. Near Durban.
42. **CYNODON** Pers. "isi Nandi." 'uNgwengwe."  
**dactylon** Pers. Common pioneer in open spaces. Often dominant over termites' nests and old kraals. Used for lawns.
43. **MICROCHLOA** R.Br.  
1. **caffra** Nees. Mountain veld. Often dominant.  
2. **altera** Stapf var **nelsoni** Stapf. Mountain veld common.
44. **CTENIUM** Panz.  
**concinnum** Nees. Rare in Natal. Commoner in Pondoland.
45. **HARPECHLOA** Kunth.  
**capensis** Kth. Chiefly in mountain veld. Common.
46. **CHLORIS**. Wats.  
1. **gayana** Kth. Grass veld. "umTaka." "Rhodes grass."  
2. **petraea** Thb. Open rocky hillsides. "umBungane."  
3. **pycnothrix** Trin. Chiefly ruderal.  
4. **virgata** Swartz. Grassveld and ruderal.  
**virgata** var **elegans** Stapf. Inanda.
47. **ELEUSINE** Gaertn.  
1. **indica** Gaertn. Common ruderal. "uMunyankomo."  
2. **coracana** Gaertn. Cultivated by natives. "uPoko."
48. **DACTYLOCTENIUM**. Willd.  
**aegyptiacum** Willd. Sand dune and seashore species. Often dominant. Sometimes used for lawns.
49. **LEPTOCARYDIUM**. Hochst.  
**vulpiastrum** Stapf. Rare stream bank species.
50. **CROSSOTROPIS** Stapf.  
**grandiglumis** Rendle. A pioneer on stony hillsides.

51. **TRIRAPHIS** R.Br.  
*rehmanni* Hack. Mountain veld.
52. **POTAMOPHILA** R. Br. (*Maltebrunia* Kth.)  
*prehensilis* Bth. Shade loving forest species. Coastbelt
53. **LEERSIA** Sw. "amaXaposi."  
*hexandra* Sw. Vleis, often dominant.
54. **EHRHARTA** Thb.  
  1. *erecta* Lam. Coast sand dunes and Drakensberg.
  2. *calycina* Sw. Coast sand dunes.
55. **PHALARIS** L.  
  1. *arundinacea* L. Vleis. Common.
  2. *minor* Retz. Ruderal. Introduced.
  3. *canariensis* L. Ruderal. Introduced.
  4. *bulbosa* L. Cultivated.
56. **MELICA** L.  
*racemosa* Thb. Coast and Midlands. Open scrub. Rocky places.
57. **FINGERHUTHIA** Nees.  
*sesleriaeformis* Nees. Vleis.
58. **STIBURUS** Stapf.  
*alopecuroides* Stapf. Moist places at higher altitudes.
59. **BRIZA** L.  
*minor*. Introduced weed.
60. **POA** L.  
  1. *annua* L. Introduced.
  2. *trivialis* L. Introduced.
  3. *binata* Nees. Mountain veld. "umQulzazane."
61. **FESTUCA** L.  
  1. *scabra* Vahl. Mountain veld.
  2. *caprina* Nees. Mountain veld.
  3. *costata* Nees. Mountain veld.
62. **VULPIA** Gmel.  
*myuros* Gmel. Ixopo. Rare.
63. **BROMUS** L.  
  1. *maximus* Desf. Introduced.
  2. *natalensis* Stapf.  
*natalensis* var *lasiophilus* Stapf. South Downs 4-5,000 ft.
  3. *secalinus* L. Mountain veld.
  4. *leptoclados* Nees. Mountain veld.
  5. *unioloides* H.B.K. Ruderal introduced.
64. **BRACYPODIUM** Beauv.  
*flexum* Nees. Biggarsberg 4-5,000 ft.  
*flexum* var *simplex* Stapf. Midlands and Drakensberg.  
Usually in shade.
65. **LOLIUM** L.  
  1. *multiflorum* Lam. Introduced weed.

2. **rigidum** Gaud. var **rottboellioides** Heldr. Weed.
3. **temulentum** L. Weed.
4. **perenne**. Cultivated.
5. **italicum**. Cultivated.

66. **OLYRA** L.

**latifolia** L. Ngoya Zululand.

67. **ARUNDINARIA** Michx.

**tesselata** Munro. The Berg Bamboo. "uQalo." Common along streams of the Drakensberg.

## FAMILY 10—CYPERACEAE.

Herbs usually with underground rhizomes and solid culms. Leaf sheaths closed. Flowers arranged in spikelets, consisting of an axis (rachilla) bearing bracts (glumes) with flowers in their axils (or some without). Flowers hermaphrodite or unisexual. Perianth reduced to 6 or fewer scales or bristles or wanting. Stamens 1—3, rarely more. Anthers basifixed. Ovary superior 1 celled. Ovule 1, basal inverted. Style 1, with 2, 3 or 4 (rarely 1) branches. Fruit a nut or drupe. Seed endospermic. 19 genera 134 species.

1. Flowers all unisexual (**Cariceae**)

2.

Flowers hermaphrodite; rarely a few male or female intermixed.

4.

2. Nut on a gynophore, not enclosed in a utricle or bottle-like bract.

**17 SCLERIA.**

Nut enclosed in a bottle-like bract or utricle.

3.

3. Nut enclosed in a bottle-like bract, deeply split down and often containing a male spike or rachilla.

**18 SCHOENOXIPHIMUM.**

Nut enclosed in a utricle.

**19 CAREX.**

4. Empty glumes at base of spikelet, usually more than 2. Fertile glumes few, often 1. Spikelets centrifugal, with a central flower.

5.

Empty glumes at base of spikelet 2—0. Fertile glumes, usually many, rarely 1—2. Spikelets centripetal without a terminal flower.

7.

5. Style branches 2.

**14 RHYNCHOSPORA.**

Style branches 3.

6.

6. Perianth bristles 5—6 glumes 2 ranked.

**15 COSTULARIA.**

Perianth bristles none. Glumes spiral.

**16 CLADIUM.**

7. Bracteoles (Hypogynous scales) present.

8.

Bracteoles absent.

9.

8. Bracteoles 2 standing fore and aft within the glume.

**12 LIPOCARPHA.**

Bracteoles united in front longer than glume, almost enveloping the nut.

**13 ASCOLEPIS.**

9. Glumes 2 ranked. Spikelets usually in heads or umbels. 10.  
 Glumes spiral. Spikelets usually in spikes or panicles. 14.  
 10. Style 2 branched. 11.  
 Style 3 branched. 13.  
 11. Spikelet bearing several nuts. Nuts compressed dorsally.  
 Nuts compressed laterally. 12.  
 12. Spikelet bearing 1—2 (rarely more) nuts. **1 KYLLINGA.**  
 Spikelet bearing several or many nuts. **2 PYCREUS.**  
 13. Rachilla of spikelets persistent. **4 CYPERUS.**  
 Rachilla of spikelet breaking up. **5 MARISCUS.**  
 14. Style conspicuously thickened at the base. 15.  
 Style not or slightly thickened at the base. 17.  
 15. Hypogynous bristles 3—8. Base of style persistent.  
**6 ELEOCHARIS.**  
 Hypogynous bristles none. 16.  
 16. Style persistent or, if deciduous, not leaving a button on the  
 nut. **7 FIMBRISTYLIS.**  
 Style deciduous, leaving a button on the nut.  
**8 BULBOSTYLIS.**  
 17. Flowers with a toothed or lobed, persistent disc at the base  
 of the ovary. **10 FICINIA.**  
 Flowers without a disc. 18.  
 18. Glumes hairy. **11 FUIRENA.**  
 Glumes glabrous. **9 SCIRPUS.**  
**1. KYLLINGA** Rottb.  
 1. *alba* Nees. Coast vleis.  
*alba* var *alata* C.B.Cl. Coastbelt. Margins of bush.  
 2. *buchanani* C.B.Cl. Umzula.  
 3. *cylindrica* Nees. Inanda vleis.  
 4. *elatiore* Kth. Common. Coast and Midlands. Vleis. Used  
 by natives for making mats. "umXozane."  
 5. *erecta* Schumach. Coast and Midland vleis. Common.  
 6. *lehmanni* Nees. Coast vleis.  
 7. *melanosperma* Nees. Coast and Midland vleis. Common.  
 8. *pauciflora* Ridley.  
**2. PYCREUS.** Beauv.  
 1. *angulatus* Nees. Midland vleis.  
 2. *chrysanthus* C.B.Cl.  
 3. *elegantulus* C.B.Cl. Coastbelt vleis.  
 4. *ferrugineus* C.B.Cl. Coast and Midland vleis. Common.  
 5. *flavescens* Reichb. Mountain regions.  
 6. *macranthus* C.B.Cl. Coast to Drakensberg.  
 7. *mundii* Nees. Coast and Midland vleis.  
 8. *oakfortensis* C.B.Cl. Coast and Midland vleis.  
 9. *polystachyus* Beauv. Coastbelt vleis.  
*polystachyus* var *laxiflora* Bth. Coastbelt vleis.



10. **rehmannianus** C.B.Cl. Midlands.
11. **umbrosus** Nees. Common all over.
3. **JUNCELLUS** C.B.Cl.
  - laevigatus** C.B.Cl. Coastbelt vleis.
4. **CYPERUS** L. "inTsikane."
  1. **albostriatus** Schrad. Coast scrub and forest, very common.
  2. **compactus** Lam. Grassveld. Common coast to Drakensberg.
    - compactus** var **flavissimus** C.B.Cl. Midlands.
  3. **compressus** L. Coastbelt.
  5. **denudatus** L.f. Coast and Midlands.
  6. **difformis** L. Coastbelt.
  7. **distans** L.f. Coast and Midlands. Common.
  8. **esculentus** L. Common weed. "inDawo."
  9. **fastigiatus** Rottb. Common all over. Often dominant in vleis.
  10. **flabelliformis** Rottb. Coastbelt.
  11. **haematocephalus** C.B.Cl. Mountain regions.
  12. **immensus** C.B.Cl. Coastbelt vleis.
  13. **isoclados** Kth. Coastbelt.
  14. **latifolius** Poir. Common. Often dominant in vleis.
    - latifolius** var **angustifolius** Krauss.
  15. **leptocladus** Kth. Coast and Midlands.
  16. **macranthus** Boeck. Midlands.
  17. **marginatus** Thb. Midlands. Common.
  18. **natalensis** Hochst. Coastbelt.
  19. **rotundus** L.
    - rotundus** var **platystachys** C.B.Cl.
  20. **rupestris** Kth. Common on bare rocks especially at high altitudes and on hilltops.
  21. **papyrus** L. Zululand. Dominant over large marshy flats.
  22. **madagascarensis** Roem and Sch. Coastbelt.
  23. **textilis** Thb. Ruderal.
  24. **sexangularis** Nees. Common. Vleis and moist grassveld.
  25. **schlechteri** C.B.Cl. Mount Insiswa. 6,000ft.
  26. **sphaerospermus** Schrad. Coastbelt.
  27. **tenax** Boeck.
  28. **teneriffae** Poir.
  29. **flava** L. Mont-aux-Sources, 9,500 ft.
5. **MARISCUS** Gaertn.
  1. **binucifer** C.B.Cl. Midlands.
  2. **capensis** Schrad. Midlands and Drakensberg. Grassveld.
  3. **congestus** C.B.Cl. Coast and Midland vleis. Common.
    - congestus** var **glandulifera** C.B.Cl.

4. **albomarginatus** C.B.Cl. Midland grassveld.
5. **cooperi** C.B.Cl.
6. **deciduus** C.B.Cl. Midland vleis.
7. **dregeanus** Kth. Coast and Midland vleis.  
**dregeanus** var **buchanani** near Durban.
8. **elator** C.B.Cl. Coastbelt.
9. **elephantinus** C.B.Cl.
10. **grantii** C.B.Cl.
11. **gueinzii** C.B.Cl. Coastbelt.
12. **macr** Kth.
13. **macrocarpus** Kth. Coast and Midlands.
14. **nossibeensis** Stevd.
15. **owani** C.B.Cl. Sydenham 300 ft.
16. **pseudovestitus** C.B.Cl. Sydenham, 300 ft.
17. **radiatus** Hochst. Coastbelt and Midlands. Common.
18. **sieberianus** Nees. Coastbelt and Midlands. Common.
19. **umbellatus** Vahl. Coastbelt. Common.
20. **umbilensis** C.B.Cl. Coastbelt.
21. **vestitus** C.B.Cl. Bush and forest margins.
6. **ELEOCHARIS** R.Br. (**Heleocharis** R.Br.)  
**limosa** Schultz. Coast and Midland vleis.
7. **FIMBRISTYLIS** Vahl.
  1. **complanata** Link. Coast and Midland vleis. Common.  
**complanata** var **kraussiana** C.B.Cl. Coast and Midlands.  
**complanata** var **consanguinea** C.B.Cl.
  2. **diphylla** Vahl. Coastbelt. Common.
  3. **exilis** Roem and Schultes. Coastbelt.
  4. **ferruginea** Vahl. Coast and Midlands. Common.
  5. **monostachya** Hassk. Coast and Midland grassveld. Com-
  6. **obtusifolia** Kth. Coastbelt, near river mouths.
8. **BULBOSTYLIS** Kunth.
  1. **cinnamomea** C.B.Cl. Coast to Drakensberg. Common.
  2. **collina** Kth. Coast and Midlands.
  3. **humilis** Kth. Inanda.
  4. **kirkii** C.B.Cl. Inanda.
  5. **striatella** C.B.Cl.
  6. **zeyheri** C.B.Cl. Coastbelt.
  7. **cardiocarpa** C.B.Cl. Coastbelt.
9. **SCIRPUS** L.
  1. **cernuus** Vahl.  
**cernuus** var **subtilis** C.B.Cl. Inanda.
  2. **expallescens** Boeck.
  3. **fluitans** L. Common all over in vleis and rivers.
  4. **hystrix** Thb. Midlands.
  5. **littoralis** Schrad. Coast. Salt marshes.
  6. **macr** Boeck. Coast and Midlands.

7. **paludicola** Rottb.
8. **prolifer** Rottb. Coast and Midlands. Common.
9. **rivularis** Boeck. Coast and Midlands. Common.
10. **subprolifer** Boeck. Coast and Midlands.
11. **falsus** C.B.Cl. Mont-aux-Sources. 9,500 ft.
10. **FICINIA** Schrad.
  1. **cinnamomea** C.B.Cl. Coast and Midlands.
  2. **gracilis** Schrad.
  3. **laciniata** Nees. Coastbelt.
  4. **stolonifera** Boeck. Van Reenen's, Drakensberg.
11. **FUIRENA** Rottb.
  1. **chlorocarpa** Ridley.
  2. **coerulescens** Steud. Inanda.  
**coerulescens** var **buchanani** C.B.Cl.
  3. **eckloni** Nees. Coastbelt.
  4. **glabra** Kth. Ibis.
  5. **gracilis** Kth. Coast and Midlands.
  6. **microlepis** Kth. Coast and Midlands.
  7. **pachyrrhiza** Ridley. Inanda.
  8. **pubescens** Desf. Coast and Midlands. "umXopo."
12. **LIPOCARPHA** R.Br.
  1. **argentea** B.Br. Coastbelt.
  2. **pulcherrima** Ridley. Coastbelt.
13. **ASCOLEPIS** Steud.  
**capensis** Ridley. Common in High veld grassland.
14. **RHYNCHOSPORA** Vahl.
  1. **aurea** Vahl.
  2. **cyperoides** Mart. Coastbelt.
  3. **glauca** Vahl. Common all over.
  4. **spectabilis** Hochst. Sydenham, 300 ft.
15. **COSTULARIA** C.B.Cl.  
**natalensis** C.B.Cl.
16. **CLADIUM** P. Browne.  
**mariscus** R.Br. (**jamaicense** Crantz). Coastbelt.
17. **SCLERIA** Berg.
  1. **angusta** Ness. Ngoya, Zululand.
  2. **catophylla** C.B.Cl. Coastbelt.
  3. **hirtella** Sw. Coastbelt.
  4. **helcoides** Kth. Coastbelt.
  5. **melanomphala** Kth. Coast and Midlands.
  6. **natalensis** C.B.Cl. Coast and Midlands.
  7. **woodii** C.B.Cl. Midlands and Drakensberg.
18. **SCHOENOXIPHIMUM** Nees.  
**rufum**. Coast and Midlands. Forest margins and vleis.
19. **CAREX** L.
  1. **bolusii** C.B.Cl.

2. **buchanani** C.B.Cl.
3. **condensata** Nees. Zululand.
4. **drakensbergensis** C.B.Cl. Drakensberg.
5. **dregeana** Kth. Inanda and Drakensberg.
6. **esenbeckiana** Boeck. Drakensberg and Zululand.
7. **extensa** Gooden. Midlands.
8. **petitiana** A. Rich. Drakensberg, 6,000 ft.
9. **phacota** Spreng. Midlands and Drakensberg.
10. **spicato-paniculata** C.B.Cl. Midlands and Drakensberg.

## FAMILY 11—PALMAE.

Trees. Leaves large pinnate or fan shaped, usually forming a terminal crown. Petiole sheathing at base. Flowers in simple or branched spadices, usually unisexual. Perianth 6 parted in a double row. Stamens 6, rarely 3. Ovary superior 1—3 celled, or of 3 separate carpels. Ovules 1 in each cell. Fruit berry or drupe-like, often 1 celled by the abortion of 2 carpels. Seed with small embryo and horny endosperm. 3 genera 3 species.

1. Carpels 3 distinct, only one maturing. Leaves pinnate.

### 1 PHOENIX.

Carpels 3 united.

2.

2. Leaves fan shaped.

### 2 HYPHAENE.

Leaves pinnate.

### 3 RAPHIA.

1. **PHOENIX** L. "uSundu."

**reclinata** Jacq. Common in open glades, often dominant in clumps all along coastbelt.

2. **HYPHAENE** Gaertn. "Ilala."

**crinita** Gaertn. Dominant over large areas of sandy soil forming "Ilala Palm Veld" on coast belt and in Zululand.

3. **RAPHIA** Beauv.

**vinifera** Beauv. Kosi Bush. N.E. Zululand.

## FAMILY 12—ARACEAE.

Herbs or shrubs. Leaves usually net-veined. Flowers unisexual or hermaphrodite, in spadices without bracteoles. Perianth simple or absent. Stamens opposite perianth lobes. Ovary single, 1—many celled, superior. Ovules 1—many in each cell. Fruit 1—many seeded berry. Seeds coat fleshy. 3 genera 7 species.

1. Floating aquatics. Perianth 0. Leaves in rosette.

### 1 PISTIA.

Marsh or land plants tuberous rooted.

2.

2. Perianth cupular. Spathe tubular below.

### 2 STYLOCHITON.



Perianth none. Spathe convolute below widely opening.

### 3 ZANTEDESCHIA.

#### 1. PISTIA L.

*stratiotes* L. In stagnant pools of Coast and Midland rivers.

#### 2. STYLOCHITON Leprieur. "umFana-ka-sihlanjana."

*natalense* Schott. Coastbelt.

#### 3. ZANTEDESCHIA. Spreng (*Richardia* Kunth). "in Tebe."

1. *aethiopica* Spreng. (*R. africana* Kunth). Common all over in moist places.

2. *hastata* (Hk.f.) Eng. Coast and Midlands. Common.

3. *albomaculata* Baill. Midlands.

4. *melanoleuca* (Hk. f.) Engl. Inanda.

5. *rehmanni* (N.E. Br.) Engl. Upper districts.

## FAMILY 13—LEMNACEAE.

Minute floating herbs, consisting of fronds. Flowers in a cavity of frond, consisting of 1—2 stamens (male flowers) and 1 ovary (female flowers). Perianth 0. Ovary 1 celled. Ovules 1—6. Seeds minute endospermic. 2 genera 4 species.

1. Fronds rootless. Flowers on back of frond. **1 WOLFFIA.**

Fronds with 1 or more roots. Flowers at margin of frond.

### 2 LEMNA.

#### 1. WOLFFIA Hk.

1. *michellii* Schleid.

2. *denticulata* Hegelmaier.

#### 2. LEMNA L.

1. *minor* L. Common.

2. *gibba* L.

## FAMILY 14—FLAGELLARIACEAE.

Herbs climbing by tendril tipped leaves. Flowers hermaphrodite. Perianth segments 6. Stamens 6. Ovary superior 3-celled. Fruit a berry, 1—2 seeded. Seeds with mealy endosperm. 1 genus, 1 species.

**FLAGELLARIA** L. "uGonoti."

*guineensis* Schumach. Common around margins of bush, Coast and Midlands.

## FAMILY 15—RESTIONACEAE.

Rush or sedge like herbs. Leaves linear or reduced to a sheath. Flowers dioecious. Perianth of 3—6 membranous or scarious segments. Stamens 2—3. Anthers 1 celled. Ovary superior 1—3 celled with 1—3 ovules. Fruit dry. Endosperm mealy. 1 genus 1 species.

**1. LEPTOCARPUS** R.Br.

**paniculatus** Mast. Valley near Baviaan Falls, Alfred County.

**FAMILY 16—XYRIDACEAE.**

Herbs. Leaves radical, linear. Flowers hermaphrodite, in dense spikes with involucre of imbricate glumaceous bracts. Sepals 2—3 (1 sepal larger and deciduous). Petals 3 united. Fertile stamens 3 adnate to petals. Staminodes 3 or 0, bifid at apex. Ovary superior 1 celled or imperfectly 3 celled. Ovules numerous. Style 3 cleft. Fruit capsular. Endosperm mealy. 1 genus 5 species.

**XYRIS** L. (Mostly in wet spots).

1. **anceps** Lam. Near Durban.
2. **capensis** Thb. Coast to Drakensberg. Common.
3. **gerrardi** N.E.B. Zululand.
4. **natalensis** Nilss. Coastbelt and Midlands.
5. **umbilonis** Nilss. Coast and Midlands.

**FAMILY 17—ERIOCAULACEAE.**

Herbs. Leaves radical linear. Flowers minute unisexual, in heads surrounded by an involucre. Perianth membranous simple or double, rarely 0 in female flowers. Stamens 2—6. Ovary superior 2—3 celled. Ovule 1 in each cell. Styles 3 or 3 branched. Fruit capsular. Endosperm mealy. 1 genus 7 species.

**ERIOCAULON** L. (In rivers and vleis.)

1. **abyssinicum** Hochst. Midlands.
2. **africanum** Hochst. Midlands.
3. **dregei** Hochst. Coastbelt.
4. **natalensis** Schinz.
5. **ruhlandii** Schinz. Clairmont coastbelt.
6. **sonderianum** Körn. Zululand.
7. **woodii** N.E.B. Murchison.

**FAMILY 18—COMMELINACEAE.**

Herbs. Leaves alternate, bases sheathing. Flowers hermaphrodite. Sepals 3. Petals 3. Fertile stamens 2—6. Ovary superior 2—3 celled. Style 1. Ovules 1—many in each cell. Fruit capsular. Endosperm mealy. 5 genera 15 species.

1. Fertile stamens 2—3. Sterile 0—4. Flowers irregular. 2.
- Fertile stamens 5—6. Flowers more or less regular. 3.
2. Inflorescence included or nearly so in a spathe.

**1 COMMELINA.**

Flowers not included in a spathe.

**2 ANEILEMA.**

3. Ovary 2 celled. Racemes paniced.

**5 FLOSCOPA.**

Ovary 3 celled. Flowers axillary clustered.

4.

4. Stamens inserted towards top of corolla tube.

**3 COLEOTRYPE.**

Stamens hypogynous. Petals free at base, then united into a tube.

**4 CYANOTIS.**

**1. COMMELINA** Plum.

1. *africana* L. Common. Coast to top of Drakensberg.  
*africana* var *lancispatha* C.B.Cl. Inanda.  
*africana* var *barberae* C.B.Cl. Inanda.
2. *benghalensis* L. Coastbelt and Zululand.
3. *eckloniana* Kth. Coastbelt.
4. *gerrardi* C.B.Cl. Coast and Midlands. Common.
5. *karooica* C.B.Cl. Inanda.
6. *krebsiana* Kth. Coast and Midlands.  
*krebsiana* var *villosior* C.B.Cl.
7. *livingstoni* C.B.Cl. Coastbelt.
8. *nudiflora* L. Common. Coast and Midlands.  
*nudiflora* var *werneana* (Hassk.) C.B.Cl.

**2. ANEILEMA** R.Br.

1. *aequinoctiale* Kth. Coastbelt bush.
2. *dregeanum* Kth. Coastbelt and Zululand. Common.
3. *sinicum* Ldl. Coastbelt and Zululand.

**3. COLEOTRYPE** C.B.Cl.

*natalensis* C.B.Cl. Coastbelt.

**4. CYANOTIS** D. Don.

*nodiflora* Kth. Common coast to Drakensberg.

**5. FLOSCOPA.** Lour.

1. *glomerata* Hassk. Coastbelt.
2. *mannii* C.B.Cl. Zululand.

## FAMILY 19—JUNCACEAE.

Herbs or rarely (*Prionium*), stem woody. Flowers regular, hermaphrodite. Perianth of 6 free, rigid segments, usually green. Stamens 6, rarely 3. Ovary superior, 1 or 3 celled. Ovules 3 or more. Style 1, stigmas 3. Fruit a capsule. Endosperm fleshy or hard. 3 genera, 11 species.

1. Stem woody, often 5—6 feet long. Leaves large, often 3—4 feet long, in a rosette at top of stem.

**3 PRIONIUM.**

Stem herbaceous.

2.

2. Ovary 1 celled with 3 nearly basal ovules.

**2 LUZULA.**

Ovary more or less 3 celled with many ovules in each cell.

**1 JUNCUS.**

**1. JUNCUS** L.

1. *brevistylis* Buchen.
2. *capensis* Thb.
3. *effusus* L. Midlands and Drakensberg.
4. *lomatophyllus* Spreng. Common all over.

5. *maritimus* Lam. Coast.
6. *oxycarpus* E.M. Coastbelt.
7. *punctorius* L.f.
8. *rostratus* Buchen.
9. *dregeanus* Kth. Drakensberg, 6,500 feet.

## 2. LUZULA DC.

*africana* Drege. Mont-aux-Sources. 9,500 ft.

## 3. PRIONIUM E. M.

*palmita* E.M. Marshes south of Durban. Nowhere very abundant.

# FAMILY 20—LILIACEAE.

Herbs often bulbous, shrubs or trees. Inflorescence umbellate, spicate racemose or paniced. Perianth usually corolla like. Stamens 6. Ovary superior 3-celled. Seeds usually many. Endosperm fleshy or horny. 33 genera 223 species.

1. Fruit a berry. Climbing or woody stemmed plants. 2.  
Fruit a capsule or achene. Herbaceous or fleshy leaved plants. 5.
2. Flowers dioecious. Leaves net veined. Climber.

## 1 SMILAX.

Flowers hermaphrodite. 3.

3. Perianth segments distinct. Leaves small.

## 2. ASPARAGUS.

Perianth segments united at base. Leaves well developed. 4.

4. Veins of leaf lax, conspicuous. Flowers cymose. 3 BEHNIA.  
Veins of leaf close, inconspicuous. Flowers racemose.

## 4 DRACAENA.

5. Underground part neither a bulb nor a corm. 6.  
Underground part a bulb or corm. 20.
6. Flowers solitary, axillary. Stem leafy to apex. 7.  
Flowers not solitary, or if solitary then terminal. 9.
7. Perianth segments united almost to top.

## 31 SANDERSONIA.

Perianth segments free or almost so. Stems climbing. 8.

8. Perianth spreading or reflexed. Style bent downwards.

## 30 GLORIOSA.

Perianth segments conniving. Style not bent down.

## 32 LITTONIA.

9. Flowers in umbels enclosed by 2 bracts. 10.  
Flowers not in umbels enclosed by 2 bracts. 11.
10. Perianth tube long with a corona. 17 TULBAGHIA.  
Perianth tube short without a corona. 16 AGAPANTHUS.
11. Perianth segments free or almost so. Herbs. 12.  
Perianth segments united in a long or short tube. 16.
12. Anthers basifixed erect. Anther bases sometimes lobed. 13.



- Anthers dorsifixed versatile. 15.  
 13. Leaves 1—3, usually 1. Seeds woolly. Rootstock a tuber.  
     **13 ERIOSPERMUM.**  
 Leaves more than 3. Rootstock obscure or small. 14.  
 14. Capsule deeply 3 lobed or acutely angled. Seeds discoid.  
     **15 CHLOROPHYTUM.**  
 Capsule not lobed. Obtusely angled. Seeds triquetrous.  
     **14 ANTHERICUM.**  
 15. Filaments glabrous. Ovules 2 in each cell.  
     **9 BULBINELLA.**  
 Filaments bearded. Ovules 3 or more in each cell.  
     **10 BULBINE.**  
 16. Stamens inserted at throat of perianth tube. Ovule 1 in each cell.  
     **33 SANSEVIERA.**  
 Stamens free or almost free from perianth. 17.  
 17. Leaves thick and fleshy. 18.  
     Leaves not fleshy. 19.  
 18. Perianth tube curved, swollen below. Leaves usually with white spots. Stamens shorter than perianth.  
     **7 GASTERIA.**  
 Perianth tube straight or nearly so. Stamens as long as the perianth.  
     **8 ALOE.**  
 19. Perianth tube short and wide. **6 NOTOSCEPTRUM.**  
     Perianth cylindrical with a long narrow tube.  
     **5 KNIPHOFIA.**  
 20. Stem or inflorescence either branched or twining. Anthers basifixed. 21.  
     Stem simple, not twining. Anthers dorsifixed. 22.  
 21. Stems scandent. **11 BOWIEA.**  
     Stems erect. **12 SCHIZOBASIS.**  
 22. Perianth segments free or nearly so. 23.  
     Perianth segments united in a tube below. 29.  
 23. Seeds crowded, flattened or sharply angled or winged. 24.  
     Seeds not crowded, globose or obovoid. 25.  
 24. Perianth persistent. Style prismatic, narrowed to base.  
     **22 ALBUCA.**  
     Perianth deciduous. Style filiform. **23 URGINEA.**  
 25. Perianth segments narrowed into a canaliculate claw.  
     Root stock a corm. **28 ANDROCYMBIUM.**  
     Perianth segments not narrowed into a claw.  
     Rootstock bulbous. 26.  
 26. Inflorescence crowned by a tuft of leafy bracts.  
     **25 EUCOMIS.**  
     Inflorescence without a terminal tuft of bracts. 27.  
 27. Perianth segments connivent at top. Flowers sessile or short stalked. Filaments broadened almost to top.  
     **24 DRIMIOPSIS.**

Perianth segments spreading. Filaments not broadened except sometimes at the base. 28.

28. Perianth segments 1 nerved with stamens attached.

### 26 SCILLA.

Perianth segments keeled with more than 1 nerve. Stamens usually free from perianth with filaments flattened.

### 27 ORNITHOGALUM.

29. Rootstock a corm. Tunics produced as a neck. Stem 3—4 inches long with 2 leaves.

### 29 WURMBEA.

Root stock bulbous. Leaves radical. 30.

30. Perianth deciduous. Tube cylindrical. 31.

Perianth withering, not deciduous or tube campanulate. 32.

31. Perianth segments very short and broad. 19 LITANTHUS.

Perianth segments narrow, more or less elongated.

### 20 DIPCADI.

32. Perianth tube withering. Stamens inserted below the throat.

### 21 GALTONIA.

Perianth tube campanulate deciduous. Stamens inserted at the throat. 18 DRIMIA.

1. SMILAX L. "iZaza," "iYala," "inGqaqabulani."

*kraussiana* Meisn. Common in bush.

2. ASPARAGUS L. (Mostly margins of bush and thorn veld.) "isiGobo."

1. *aethiopicus* L. var *natalensis* Baker. Inanda.

2. *africanus* Lam. Coast to Drakensberg. Common. Open veld.

3. *asiaticus* L.

4. *declinatus* L.

5. *falcatus* L. Coast and Midlands. "isiKobo."

6. *medioloides* Thb. Common all over.

7. *myrioclados* Baker. Coastbelt and Zululand.

8. *plumosus* Baker. Coastbelt bush and Drakensberg.

*plumosus* var *nanus*.

9. *minutiflorus* Baker.

10. *sarmentosus* L. Coast and Midlands.

11. *saundersiae* Baker.

12. *scandens* Thb. Midlands.

13. *sprengeri* Regel. Near sea on sand dunes.

14. *stipulaceus* Lam. Midlands.

15. *subulatus* Thb.

16. *denudatus* Baker. Camperdown, 2,000 ft.

17. *lilacinus* Burch. Ginginhlovu, 1—200ft.

18. *stellatus* Baker. Drakensberg.

19. *virgatus* Baker. Coast to Drakensberg. Common.

20. *zuluensis* N.E.Br. Zululand.

3. **BEHNIA** Didrichs.

*reticulata* Didrichs. Coast and Midland Bush. Common

4. **DRACAENA** Vaud.

*hookeriana* K. Koch. Around margins and as undergrowth in coast scrub and sand dune bush.

5. **KNIPHOFIA**. Moench. (Mostly in vleis, sometimes in grassveld).

1. *buchanani* Bak. Coast and Midlands.

*buchanani* var *flavescens* Berger. Fields Hill, 1,500 ft.

2. *breviflora* Bak. Midlands and Drakensberg.

*breviflora* var *concinna* Berger. Newcastle.

3. *parviflora* Kth. Near Kokstad.

*parviflora* var *albiflora* Berger. Glencoe.

4. *pauciflora* Bak. Coastbelt.

5. *gracilis* Harv. Zululand.

6. *fibrosa* Bak. Mahwaqa Mt. 6—7,000 ft.

7. *evansii* Bak. Drakensberg. Grassveld, 6-7,000 ft.

8. *modesta* Bak. Botha's Hill. Midlands.

*modesta* var *lutescens* Berger. Manderston.

*modesta* var *woodii* Berger.

9. *multiflora* Wood and Evans. Drakensberg, 6,000 ft.

10. *ensifolia* Bak. Drakensberg.

11. *laxiflora* Kth. Howick.

12. *natalensis* Bak. Midlands and Mts. "Qaqana."

*natalensis* var *robustior* Berger. Zululand.

13. *ichopensis* Schinz. Ixopo.

14. *triangularis* Kth. Midlands.

15. *macowani* Bak. Upper Umkomaas.

16. *tuckii* Bak. Zululand.

17. *rufa* Bak.

18. *linearifolia* Bak. var *kuntzei* Berger. Colenso.

19. *longicollis* Bak.

20. *longiflora* Bak.

21. *uvaria* (L.) Hook (*alooides* Moench). Coast to Drakensberg.

22. *rooperi* Lem.

23. *sarmentosa* (Andr) Kth.

24. *primulina* Bak.

25. *porphyrantha* Bak. Van Reneen.

26. *wylei* N. E. Br. Entumeni.

6. **NOTOSCEPTRUM** Benth.

1. *natalense* Bak. Klip River County.

2. *brachystachyum* A. Zahlbr. Lidgetton. 3-4,000 ft.

7. **GASTERIA** Baker.

1. *croucheri* Baker.

2. *gracilis* Baker.

3. *glabra* Haw.

**8. ALOE L.** (Mostly in Thorn veld and rocky places.) "umHlaba."

1. *bainesii* Dyer. Midlands. Common.
2. *boylei* Baker. Tugela Valley.
3. *arborescens* Miller var *natalensis* Berger. Midlands.
4. *candelabrum* Berger. Midlands. Thorn veld.
5. *cooperi* Baker. Midlands. Common. "isiPutumane."
6. *ferox* Miller. Doubtful.
7. *greenii* Baker.
8. *kraussii* Baker. Coast and Midlands.
9. *marshalli* Wood and Evans. Glencoe.
10. *minima* Baker. Coast and Midlands. Grassveld.
11. *myriacantha* R. and S.
12. *parviflora* Baker. Pinetown.
13. *platylepis* Baker. Doubtful.
14. *marlothii* A. Berg. Tugela Valley and Zululand.
15. *nitens* Baker. Thorn veld.
16. *pratensis* Baker. Midlands. Byrnetown.
17. *saponaria* Haw. Common in grassveld. "Cena."  
*saponaria* var *brachyphylla* Bak. Midlands.
18. *thraskii* Baker. Coast. Sand dunes. Common.
19. *ciliaris* Haw. Doubtful.

**9. BULBINELLA** Kunth.

*carnosa* Baker. Coastbelt.

**10. BULBINE L.** (Grassveld mostly).

1. *asphodeloides* R. and S. Coast to Drakensberg.
2. *ensifolia* Baker. Midlands.
3. *narcissifolia* Salm Dyck. Midlands.
4. *natalensis* Baker. Coast and Midlands. "Bucu."
5. *nigra* Schinz.

**11. BOWIEA** Harv. "uGibisisela."

*volubilis* Harv. Common in bush and Thorn veld.

**12. SCHIZOBASIS** Baker.

*schlechteri* Baker.

**13. ERIOSPERMUM** Jacq. (Grassveld chiefly).

1. *burchellii* Baker. Thorn veld.
2. *cooperi* Baker. Drakensberg, Van Reenen.
3. *junodi* Baker. Coastbelt.
4. *luteorubrum* Baker. Coast and Midlands.
5. *mackenii* Baker. Coast and Midlands. Common.
6. *microphyllum* Baker. Midlands.
7. *nataglencoense* O. Kuntze. Glencoe 4-5,000 ft.
8. *junodi* Bak.
9. *platyphyllum* Bak.
10. *natalense* Baker. Coastbelt. Common.
11. *ornithogaloides* Baker. Coastbelt.
12. *sprengerianum*. Schinz.



**14. ANTHERICUM** L. (Grassveld and around bush).

1. **angulicaule** Baker.
2. **capitatum** Baker. Drakensberg, Van Reenen.
3. **cooperi** Baker. Zululand. 500 ft.
4. **elongatum** Willd var **holostachyum** Baker. Coastbelt.
5. **gerrardi** Baker. Coast and Midlands.
6. **hirsutum** Thb. Near Durban.
7. **longifolium** Jacq. (**Chlorophytum**).
8. **longistylum** Baker.
9. **pubescens** Baker. Drakensberg.
10. **pulchellum** Baker. Coast and Midlands. Common.
11. **robustum** Baker. Coastbelt.
12. **saundersiae** Baker.
13. **stenophyllum** Baker. Midlands.
14. **nataglencoense** O. Ktze.
15. **triflorum** Ait. Alexandra County, 1,800 ft.
16. **acutum** C. H. Wright.

**15. CHLOROPHYTUM** Ker. (Grassveld and around bush).

1. **bowkeri** Baker. Coast and Midlands.
2. **comosum** Baker. Coast and Midlands.
3. **durbanense** O. Kuntze. Bluff, Durban.
4. **elatum** R.Br. Coast and Midlands.
5. **haygarthii** Wood and Evans.
6. **modestum** Baker. Coastbelt.
7. **vaginatum** Baker. Midlands.

**16. AGAPANTHUS** L'Herit.

**umbellatus** L'Herit. Common in light shade at higher altitudes.

**umbellatus** var **minor** Lodd. Midlands.

**17. TULBAGHIA** L. (Grassveld or vleis).

1. **acutiloba** Harv. Coast to Drakensberg.
2. **alliacea** L.f. Coast and Midlands.
3. **leucantha** Baker. Coast to Drakensberg. Common.
4. **natalensis** Baker. Midlands. Vleis.
5. **violacea** Harv. Midlands.

**18. DRIMIA** Jacq. (Grassveld or vleis).

1. **altissima** Hk. (**Urginea**). Coast and Midlands.
2. **angustifolia** Baker. Midlands.
3. **elata** Jacq. Midlands. Common.
4. **neriniformis** Baker. Van Reenen vleis.
5. **rudatisii** Schltr. Fairfield Alexandra County.

**19. LITANTHUS.** Harv.

**pusillus** Harv. Drakensberg. On rocks.

**20. DIPCADI.** Medic. (Grassveld, vleis and around bush).

1. **ciliare** Baker.
2. **oreophila** Schlechter. Van Reenen.

3. *hyacinthoides* Baker. Coast and Midlands.
4. *polyphyllum* Baker. Groenberg 2,000 ft.
5. *readii* Baker.
6. *umbonatum* Baker. Coastbelt.
7. *viride* Moench. Coast and Midlands. Common.
21. **GALTONIA.** Dcne.
  1. *candicans* Dcne. Midlands and Drakensberg. Common.
  2. *princeps* Dcne. Near Howick.
22. **ALBUCA** L. (Grassveld and vleis, and in bush).
  1. *affinis* Wood & Evans. Van Reenen. Common.
  2. *crinifolia* Baker. Inanda, in bush.
  3. *humilis* Baker. Wet rocks, summit of Tabanhlope.
  4. *nelsoni* N.E.Br. Umlaazi River.
  5. *oligophylla* Schltr. Fairfield, Alexandra County.
  6. *pachychlamys* Baker. Drakensberg, 6,500 feet.
  7. *spiralis* L. Van Reenen, 5-6,000 feet.
  8. *trichophylla* Baker. Drakensberg.
23. **URGINEA** Steinh. (Grassveld, vleis, and around bush).
  1. *berylloides* Baker. Umgeni.
  2. *capitata* Baker. Coast and Midlands.
  3. *echinostachya* Baker. Coast and Midlands.
  4. *lilacina* Baker. Coast and Midlands. Vleis.
  5. *multisetosa* Baker. Mooi River, 4-5,000 ft.
  6. *natalensis* Baker. Coast and Midlands.
  7. *pauciflora* Baker. Coast and Midlands.
  8. *riparia* Baker. Coastbelt.
  9. *rubella* Baker. Midlands.
  10. *schlechteri* Baker. Coastbelt.
  11. *tenella* Baker. Rock crevices, Van Reenen.
24. **DRIMIOPSIS** Lindl. (Grassveld, vleis, and around bush).
  1. *humifusa* Baker.
  2. *maculata* Ldl. Coast and Midlands.
  3. *maxima* Baker. Midlands.
  4. *minor* Baker.
  5. *saundersiae* Baker. Itafamasi.
  6. *woodii* Baker. Coast and Midlands.
25. **EUCOMIS** L'Herit (Grassveld, vleis and around bush).
  1. *bicolor* Baker. Coast to Drakensberg. Vleis.
  2. *humilis* Baker. Summit of Tabanhlope. 6-7,000 ft.
  3. *nana* Ait. Tugela Valley. South Downs.
  4. *punctata* L'Herit var *concolor* Baker. South Downs.
  5. *regia* Ait.
  6. *robusta* Baker.
  7. *undulata* Ait. Coast to Drakensberg. "uMakhunda."
26. **SCILLA** L. (Mostly grassveld.)
  1. *adlami* Baker.

2. *cooperi* Hk.f. Coast and Midlands.
3. *exigua* Baker. Midlands.
4. *humifusa* Baker.
5. *inandensis* Baker. Coastbelt.
6. *kraussi* Baker. Coast to Drakensberg.
7. *lanceaefolia* Baker. Coast to Drakensberg. Abundant.
8. *laxiflora* Baker.
9. *linearifolia* Baker. Coast and Midlands.
10. *livida* Baker.
11. *megaphylla* Baker. Zululand.
12. *natalensis* Planch. Coast to Drakensberg.
13. *oostachys* Baker. Upper Umkomaas, 5-6,000 ft.
14. *palustris* W. and E. Newcastle. Vleis.
15. *polyantha* Baker. Midlands.
16. *pubescens* Baker. Midlands.
17. *rehmanni* Baker. Inanda.
18. *rigidifolia* Kth. "inGcino" or "inGcolo."  
*rigidifolia* var *nervosa* Baker. Inanda and Drakensberg.  
*rigidifolia* var *gerrardi* Baker. South Downs, 3-4,000 ft.
19. *sandersoni* Baker. Midlands.
20. *saturata* Baker. Coast and Midlands. Vleis.
21. *schlechteri* Baker. Krantzkloof.
22. *socialis* Baker.
23. *spathulata* Baker.
24. *subsecunda* Baker.
25. *tysoni* Baker.
26. *concinna* Baker. Drakensberg, near streams.
27. **ORNITHOGALUM** L. (Mostly grassveld).
  1. *albo-virens* Baker.
  2. *capillaris* Wood & Evans. Newcastle.
  3. *diphyllum* Baker. Swamp summit of Tabanhlope.
  4. *eckloni* Schlechter. Coast and Midlands.
  5. *graminifolium* Thb. Coast and Midlands.
  6. *inandense* Baker. Inanda.
  7. *leptophyllum* Baker. Midlands.
  8. *lineare* Baker. Midlands.
  9. *longiscapum* Baker. Midlands.
  10. *natalense* Baker. Summit of Amawahqa Mt., 6,800 ft.
  11. *oliganthus* Baker. Coastbelt.
  12. *stenostachyum* Baker. Umsindusi. Midlands.
  13. *subulatum* Baker. Alexandra County. 2,800 ft.
  14. *umgenense* Baker.
  15. *ebulbe* Schltr. Fairfield, Alexandra County. 2-3,000 ft.
  16. *virens* Ldl. Coastbelt.
  17. *flavovirens* Baker. Drakensberg, 6,000 ft.
  18. *zeyheri* Baker. Van Reenen.
  19. *flanagani* Baker. Summit Mont aux Sources. 9,500 ft.

**28. ANDROCYMBIUM** Willd.

1. *decipiens* N.E.B. Coastbelt.
2. *melanthoides* Willd. Drakensberg.
3. *natalense* Baker. Coast to Drakensberg.

**29. WURMBEA.**

1. *kraussii* Baker. Midlands and Drakensberg, 9,500 ft.
2. *pusilla* Phillips. Mont aux Sources, 10,000 ft.

**30. GLORIOSA** L. "Hlamvu."

*virescens* Ldl. Sand dune and coast bush. Climber.

**31. SANDERSONIA** Hook.

*aurantiaca* Hook. Midlands and Drakensberg. Common.

**32. LITTONIA** Hook.

*modesta* Hk. Coast and Midland. Scrub and bush.

**33. SANSEVIERA** Thunb. "isiKholo kotho."

*thyrsiflora* Thb. Edges of bush and Thorn veld. Coast and Midlands. Common.

**FAMILY 21—HAEMODORACEAE.**

Herbs. Perianth segments 6 free or united. Ovary superior or inferior, 3 celled (sometimes 2 sterile). Fruit a capsule. 1 genus 1 species.

**BARBERETTA** Harv.

*aurea* Harv. York Bush, in damp shady places.

(*Sansevieria* Thb. is included in this family in the Flora Capensis).

**FAMILY 22—AMARYLLIDACEAE.**

Herbs with radical leaves. Flowers more or less regular, hermaphrodite. Perianth segments 6. Stamens 6. Ovary inferior or half inferior, 3 celled. Endosperm fleshy 14 genera 75 species.

1. Rootstock a corm or tuber or woody. Flowers solitary or not subtended by a spathe. 2.

Rootstock a bulb (imperfect in *Clivia*). Flowers usually in an umbel subtended by a spathe, rarely solitary. 4.

2. Stem woody or herbaceous with leaves all down. Flowers white or tinged with purple. 14 **VELLOSIA.**

Leaves all radical. Flowers usually yellow, rarely white. 3.

3. (a) Ovary narrowed into a long beak. Fruit indehiscent.

2 **CURCULIGO.**

(b) Ovary not beaked. Fruit capsular. Flowers yellow.

1 **HYPOXIS.**

(c) Perianth tube short. Flowers red or white.

1 **A. RHODOHYPOXIS.**

4. Anthers basifixed. (Deeply sagittate in *Anoiganthus*). 5



- Anthers dorsifixed, versatile. 7.  
 5. Anthers small, subglobose. Perianth without a tube or nearly so. 3 **HESSEA**.  
 Anthers linear or sagittate. Perianth with a tube. 6.  
 6. Anthers sagittate. Flowers umbellate. 4 **ANOIGANTHUS**.  
 Anthers linear. Flowers solitary. 5 **APODOLIRION**.  
 7. Perianth divided nearly or quite to the ovary. 8.  
 Perianth with a distinct tube. 9.  
 8. Filaments thickened at the base. Stigma obscurely 3 lobed. 9 **NERINE**.  
 Filaments filiform. Stigma capitate. 8 **BRUNSVIGIA**.  
 9. Ovules many in each cell, not sunk in the placentas. 10.  
 Ovules 1—6 in each cell or sunk in the placentas. 11.  
 10. Perianth tube shorter than the limb. 7 **AMMOCHARIS**.  
 Perianth tube longer than the limb. 10 **CYRTANTHUS**.  
 11. Fruit capsular. Spathe valves 2. 12.  
 Fruit baccate, indehiscent. Spathe valves several. 13.  
 12. Ovules sessile or sunk. Capsule bursting irregularly. 6 **CRINUM**.  
 Ovules 2—4 distinct. Capsule loculicidal 3 valved. 13 **BUPHANE**.  
 13. Bulb imperfect. Ovules 5—6 in each cell. 11 **CLIVIA**.  
 Bulb large. Ovules 1—2 in each cell. 12 **HAEMANTHUS**.

# 1A. RHODOHYPOXIS Nel.

1. *baurii* Nel (*Hypoxis baurii* Bak). Common on mountains.  
*baurii* var *platypetala* Nel. Midlands and Drakensberg.  
*baurii* var *milloides* Nel. Midlands.
  2. *rubella* Nel. Summit of Mont aux Sources.
- ## 1. HYPOXIS L.
1. *angustifolia* Lam. Drakensberg.  
*angustifolia* var *buchanani* Baker. Inanda.
  2. *filiformis* Baker. Coast and Midlands. Common.
  3. *kraussiana* Buchinger. Midlands and mountains.
  4. *argentea* Harv. Coast to Drakensberg.
  5. *dregei* Baker. Coast and Midlands. (*junodii* Baker).  
*dregei* var *biflora* De Wild. Midlands.
  6. *gerrardi* Baker. Coast to Drakensberg.
  7. *membranacea* Baker. Coast to Drakensberg.  
*(brevifolia* Bak.)
  8. *obliqua* Jacq. Ellesmere, Alexandra district.  
*obliqua* var *woodii* Baker. Inanda.
  9. *sobolifera* Jacq. var *pannosa* Baker. Drakensberg.
  10. *acuminata* Baker. Coast to Drakensberg.

11. *multiceps* Buch. Inanda.
12. *oligotricha* Baker. Coast and Midlands.
13. *costata* Baker. Drakensberg.
14. *distachya* Nel. Pinetown.
15. *lata* Nel. Van Reenen, 6,000 ft.
16. *obconica* Nel. Coastbelt.
17. *rigidula* Baker. Coast to Drakensberg.  
*rigidula* var *pilosissima* Baker. Midlands.
18. *elliptica* Nel. Midlands.
19. *oblonga* Nel. Weenen County.
20. *obtusa* Burch. Drakensberg.
21. *rooperi* Moore. Coast and Midlands. "inKomfe."
22. *latifolia* Hook. Midlands. Common in Low Veld.  
"Labatheka."
2. **CURCULIGO** Gaertn.  
*plicata* Ait Midlands.  
*plicata* var *barberi* Baker. Coast to Drakensberg.
3. **HESSEA**. Herb.  
*schlechteri* O. Kuntze. Midlands. Highlands, Mooi River.
4. **ANOIGANTHUS** Baker. (Vleis).  
*breviflorus* Baker. Coast to Drakensberg. Vleis. Common.  
*breviflorus* var *minor* Baker. Moist grassveld.
5. **APODOLIRION** Baker. (Grassveld.)  
1. *buchanani* Baker. Midlands.  
2. *ettae* Baker. Grassy hill, Umbumalo. 800 ft.  
3. *mackenii* Baker. Midlands.
6. **CRINUM** L. (Mostly in vleis or around bush).  
1. *acaule* Baker. Zululand.  
2. *longifolium* Thb. Coast to Drakensberg. "umDuse."  
3. *macowani* Baker. Upper Tugela, 4-5,000 ft.  
4. *moorei* Hk.f. In woods. Inanda.  
5. *forbesianum*. Herb. Ginginhlovu, 1-200 ft.
7. **AMMOCHARIS**. Herb.  
*falcata* Herb. Thorn veld. Midlands.
8. **BRUNSVIGIA**. Heist.  
1. *josephinae* Gawl. Midlands and Drakensberg.  
2. *natalensis* Baker. South Downs. Rare.  
3. *cooperi* Baker. Drakensberg.
9. **NERINE** Herb.  
1. *angustifolia* Baker. Midlands.  
2. *appendiculata* Baker. Midlands.  
3. *filifolia* Baker.  
4. *pancratioides* Baker. Greytown.  
5. *schlechteri* Baker. Mount West, 5,600 ft.
10. **CYRTANTHUS** Ait. Coast to Drakensberg. Common.

1. *augustifolius* Ait. Coast to Drakensberg. Common.
2. *galpini* Baker. Hills above Weenen.
3. *lutescens* Herb.
4. *mackenii* Hk.f. Coastbelt.
5. *obliquus* Ait. Midlands. "uMathunga."
6. *o'brieni* Baker. Charlestown, 5-6,000 ft. Rock crevices.
7. *odorus* Gawl. Midlands.
8. *sanguineus* Hk. Coastbelt and Zululand. Common.
9. *epiphyticus* J. M. Wood. Ensikeni forest. Epiphytic on trees, rare.
10. *flanagani* Baker. Mont aux Sources, 8-9,000 ft.
11. *stenanthus* Baker. Mont aux Sources, 8-9,000 ft.
12. *macowani* Baker. Polela.
11. **CLIVIA** Lindl. (In Bush and vleis.) "Bush Lilies."
  1. *gardeni* Hk. Midlands. Common.
  2. *miniata* Regel. Coast and Midlands. In bush. "uMayime."
  3. *nobilis* Ldl. Midlands and Zululand.
12. **HAEMANTHUS** L. (Bush and grassveld.)
  1. *albiflos* Jacq. Umtwalumi, 2,800 ft.
  2. *albomaculatus* Baker. Coastbelt.
  3. *baurii* Baker. Midlands.
  4. *candidus* Bull. Tugela Valley.
  5. *deformis* Hook.
  6. *hirsutus* Baker. Midlands and Drakensberg. Rocky places.
  7. *katherinae* Baker. Coast belt and Zululand. In bush.
  8. *magnificus* Herb.
  9. *mackenii* Baker.
  10. *montanus* Baker. Stony hill, near Charlestown.
  11. *natalensis* Pappe. Coast and Midlands.
  12. *puniceus* Linn. var *membranaceus* Baker. "Dumbhi."
13. **BUPHANE** Herb.
  - disticha* Herb. Coast to Drakensberg. Common.
14. **VELLOSIA** Vand.
  1. *clavata* Baker.
  2. *elegans* Oliv. Coast to Drakensberg.
  - elegans* var *minor* Baker Midlands.
  3. *viscosa* Baker. Coast to Drakensberg.

## FAMILY 23—DIOSCOREACEAE.

Root stock tuberous. Stem twining. Leaves alternate, net veined. Flowers small green, usually dioecious. Perianth segments 6. Stamens 6. Ovary inferior 3 celled. Ovules 2 in each cell. Endosperm horny or fleshy. 2 genera 10 species.

Tuber fleshy subterranean.  
Tuber large, firm, half exposed.

**1 DIOSCOREA.**  
**2 TESTUDINARIA.**

**1. DIOSCOREA L. (In Bush.)**

1. **crinita** Hk.f. Coast and Midlands.
2. **diversifolia** Griesb. Midlands and Drakensberg.
3. **dregeana** Baker. Coast and Drakensberg.
4. **malifolia** Baker. Coast and Midlands. "inTana."
5. **microcuspis** Baker. Near Newcastle, 3-4,000 ft.
6. **mutiloba** Kth. Coast and Midlands.
7. **rupicola** Kth. Inanda. "mKwa."
8. **undatiloba** Baker.

**2. TESTUDINARIA Salisb.**

1. **elephantipes** Burch. Rocky hill, South Downs.
2. **sylvatica** Kth. Coast and Midlands.

**FAMILY 24—IRIDACEAE.**

Herbs rarely undershrubs. Inflorescence terminal. Flowers hermaphrodite. Perianth segments 6. Stamens 3 opposite outer perianth segments. Ovary inferior 3 celled. Style branches 3 often divided or dilated. Fruit a capsule. Endosperm horny. 16 genera 83 species.

1. Style branches petaloid with stamens opposite and adpressed to them. 2.

Style branches not petaloid. Stamens not adpressed to them. 3.

2. Style branches large with stigmas on underside. Inner and outer perianth segments unequal. **1 MORAEA.**

Style branches small with stigmas at tip. Inner and outer perianth segments subequal. **2 HOMERIA.**

3. Flowers more than 1 to a spathe fugitive often appearing in succession. 4.

Spathes 1 flowered, not fugitive. 5.

4. Flowers pale yellow. Style branches long subulate. **4 BOBARTIA.**

Style branches short. Flowers usually bluish. **5 ARISTEA.**

5. Style branches bifid. 6.

Style branches undivided. 8.

6. Filaments long, inserted below throat of perianth tube. **11 WATSONIA.**

Filaments short, inserted at the throat of perianth tube.

7. Flowers solitary terminal. **3 ROMULEA.**

Flowers not solitary. **10 LAPEYROUSEA.**

8. Flowers regular or nearly so. Stamens and style straight. 9.

Flowers more or less irregular. Stamens unilateral curved. 12.

9. Style long, branches short, club-shaped or linear. 10.

Style short, branches long, subulate. 11.

10. Spathe valves both membranous entire. **9 DIERAMA.**



- Outer spathe valve short, brown, emarginate. **8 IXIA.**
11. Corm present. Filaments short. **7 HESPERANTHA.**  
 No corm. Filaments at least as long as anthers. **6 SCHIZOSTYLIS.**
12. Perianth curved. **13**  
 Perianth more or less straight. **14.**
13. Perianth tube longer than limb, filiform below, cylindrical above. **16 ANTHOLYZA.**  
 Perianth tube as long as or shorter than limb, funnel shaped. **15 GLADIOLUS.**
14. Tube long. Spathe valves long green entire. **14 ACIDANTHERA.**  
 Tube short. Spathe valves short brown toothed. **15.**
15. Fruit an inflated, 3 lobed, globose capsule. **13 CROCOSMIA.**  
 Fruit a small oblong membranous capsule. **12 TRITONIA.**
- 1. MORAEA L.** "Tulps." (Grassveld and vleis.)
1. *glauca* Wood & Evans. River flat, Mooi River, 4,000 ft.
  2. *iridioides* L. Coast and Midlands.
  3. *natalensis* Baker. Midlands and Drakensberg.
  4. *spathacea* Ker. Coast to Drakensberg. Common.
  5. *tenuis* Ker. Midlands.
  6. *rivularis* Schltr. Fairfield, Alexandra County. 2-3,000 ft.
  7. *tricuspis* Ker. Coast to Drakensberg.
  8. *unguiculata* Ker. Drakensberg, 6,500 ft.
  9. *violacea* Baker. Midlands.
  10. *edulis* Ker. Drakensberg, 6-9,000 ft.
- 2. HOMERIA Vent.**  
*miniata* Sweet.
- 3. ROMULEA Maratti.**
1. *rosea* Eckl. Summit of Mount Erskine.
  2. *thodei* Schltr. Mont Aux Sources. 8,700 ft. Wet sandy places.
- 4. BOBARTIA Ker.**  
*natalensis* (Regel) Klatt.
- 5. ARISTEA Soland.** (Grassveld.)
1. *anceps* Eckl. Coast and Midlands.
  2. *compressa* Buching. Coastbelt.
  3. *eckloni* Baker. Inanda.
  4. *flexicaulis* Baker. Midlands.
  5. *majubensis* Baker. Majuba 6-7,000 ft. Tugela Valley.
  6. *montana* Baker. Majuba Mt. and Drakensberg.
  7. *paniculata* Baker. Drakensberg.
  8. *schizolaena* Harv. Coast and Midlands.
  9. *torulosa* Klatt. Coastbelt and Midlands.  
*torulosa* var *monostachya* Baker.
- 6. SCHIZOSTYLIS Backh and Harv.**

1. *coccinea* Backh. & Harv. Midlands and Drakensberg.  
Stream banks.
2. *pauciflora* Klatt. Midlands and Drakensberg. Near  
streams.
7. **HESPERANTHA** Ker. (Mostly grassveld.)
  1. *baurii* Baker. Coast and Midlands. Grassveld. Common.
  2. *bifolia* Baker. Midlands.
  3. *gracilis* Baker. Isangwana, 1,800 ft. Foot of cliff.
  4. *lactea* Baker. Coast and Midlands. Common.
  5. *leucantha* Baker. Ifafa, 1,500 ft.
  6. *modesta* Baker. Coastbelt vleis.
  7. *radiata* Ker. Midlands and Drakensberg.
  8. *subexserta* Baker. Midlands.
  9. *woodii* Baker. Midlands and Zululand.
8. **IXIA** L.
  1. *trichorhiza* Baker. Near Durban.
  2. *brevifolia* Baker. Giants' Castle, 10,000 ft.
9. **DIERAMA** K. Kah.
  1. *pendula* Baker. Coast to Drakensberg. Common.  
*pendula* var *pumila* Baker. Coast to Drakensberg.
  2. *pulcherrima* Baker. Midlands.
10. **LAPEYROUSIA** Pourr.
  1. *cruenta* Baker. Coast and Midlands. Common.
  2. *grandiflora* Baker. Umhlalazi, Zululand.
11. **WATSONIA** Nuller.
  1. *densiflora* Baker. Coast and Midlands. Common.  
*densiflora* var *alba*. Coast and Midlands.
  2. *humilis* Miller.
  3. *meriana* Miller. Upper districts. Common.
12. **TRITONIA** Ker.
  1. *kraussii* Baker. Midlands and Drakensberg.
  2. *cinnabarinea* Pax. Ifafa, 1,500 ft.
  3. *laxifolia* Bth. Inanda.
  4. *lineata* Ker. Midlands. Common.
  5. *pottsii* Bth. Midlands.
  6. *bracteata* Worsley. Greytown.
  7. *rosea* Klatt.
  8. *teretifolia* Baker. Midlands.
  9. *flavida* Schltr. Alexandra County, 2-3,000 ft.
13. **CROCOSMIA** Planch.
  - aurea* Planch. Coast and Midlands. Common.
14. **ACIDANTHERA** Hockst.
  1. *brevicollis* Baker. Mouth of Umgeni. Near sea.
  2. *platypetala* Baker. Coast to Drakensberg.
15. **GLADIOLUS** L.
  1. *aurantiacus* Klatt. Midlands.

2. *crassifolius* Baker. Midlands.
  3. *cruentus* Moore.
  4. *dracocephalus* Hk. Midlands and Drakensberg.
  5. *eckloni* Lehm. Biggarsberg and Zululand.
  6. *edulis* Burch. Newcastle and Drakensberg.
  7. *gracilis* Jacq.
  8. *inandensis* Baker. Inanda.
  9. *junodii* Baker. Howick.
  10. *ludwiggii* Pappe. Coast and Midlands. "isiDwa."
  11. *microsiphon* Bak.
  12. *papilio* Hook. Coast to Drakensberg. Vleis.
  13. *platyphyllus* Baker. Coast and Midlands.
  14. *psittacinus* Hook. Camperdown.  
*psittacinus* var. *cooperi*. Zululand. Coastbelt.
  15. *pubescens* Baker. Mooi River, 4,000 ft.
  16. *purpureo-auratus* Hk.f. Upper Tugela, Drakensberg.
  17. *rachidiflorus* Klatt. Round Durban Bay.
  18. *salmoneus* Baker. Upper Umkomaas, 3-4,000 ft.
  19. *sericeo-villosus* Hk. Drakensberg.
  20. *saundersii* Hk. Inanda. Rock crevices.
  21. *subaphyllus* N.E.Br. Zwartkop Mt. Midlands.
  22. *tritonoeformis* O. Kuntze. Howick.
  23. *tysoni* Baker. Alexandra County, 1,800 ft.
  24. *parvulus* Schltr. Fairfield, Alexandra County.
  25. *woodii* Baker. Inanda.
  26. *flanagani* Baker. Mont aux Sources, 8,500 ft.
16. **ANTHOLYZA** L.
1. *caffra* Ker. Midlands.
  2. *paniculata* Klatt. Midlands and Drakensberg.  
"umLunge."

## FAMILY 25—MUSACEAE.

Tall herbaceous or tree-like plants with large leaves. Flowers irregular. Stamens 5. Ovary inferior 3 celled. Endosperm mealy. 1 genus 1 species.

Sepals 3, petals 3, very unequal, 2 lower connivent and forming a sagittate blade with a central channel in which stamens and style are placed, the third much smaller.

### STRELITZIA.

**STRELITZIA** Ait. "isiGceba."

*augusta* Thb. (wild banana). Very common all along coast-belt. Dominant in clumps in the sand dune bush.

## FAMILY 26—ZINGIBERACEAE.

Herbs. Stems simple springing from a rootstock. Perianth of calyx and corolla. Fertile stamen 1. Staminodes 1—3 petal-

like. Ovary inferior, 3 celled. Ovules numerous. Style enclosed in a groove of filament. Fruit a capsule or berry. Endosperm mealy. 1 genus 1 species.

**KAEMPFERIA** L. "inDungulu."

*natalensis* Schltr. & K. Schum. (*Siphonochilus natalensis*. Wood & Evans). Coastbelt.

## FAMILY 27—ORCHIDACEAE.

Herbs (sometimes epiphytic). Flowers irregular. Receptacle usually continued above ovary to form a column on which the stigma and anther are inserted. Stamen (in African genera) 1. Ovary inferior 1 celled. Ovules numerous parietal. One of the stigma lobes transformed into a rostellum to which pollen masses adhere. Seeds small exendospermic. 29 genera 219 species.

1. Pollen masses with basal stalk-like appendages which adhere to sticky gland-like appendages of the rostellum. 2.

Pollen masses with apical appendages or without appendages. 18.

2. Anthers reclinate or forming an angle with the column. 3.
- Anthers erect or if reclinate (*Cynorchis*) then lip 1 spurred. 8.

3. Lip adnate to the column with an appendage on its upper face. Petals usually converging into a hood. 4.

Lip free from the column or if slightly adnate to it then petals not converging into a hood. 6.

4. Lateral sepals spurred or saccate. 29 **DISPERIS**.  
Lateral sepals not spurred nor saccate. 5.

5. Petals united with dorsal sepal into a hood, contracted in front, concave or obliquely saccate at the base.

28 **CORYCIUM**.

Hood flattened, not contracted in front, not saccate at base.

27 **PTERYGODIUM**.

6. Lip uppermost, 2 spurred or 2 saccate at base.

24 **SATYRIUM**.

Odd sepal uppermost, spurred; lip not spurred. 7.

7. Lip more or less saccate at base. Petals more or less adnate to the base of dorsal sepal and column.

26 **BROWNLEE**.

Lip flat. Petals free from column. 25 **DISA**.

8. Stigmatic processes 2, often elongate, clavate and lateral. 9.  
Stigma 1. flat; column very short. 13.

9. Stigmatic processes short, adnate to lip. 19 **PERISTYLUS**.  
Stigmatic processes free. 10.

10. Stigmatic processes short, broad, oblong. 23 **CYNORCHIS**.  
Stigmatic processes more or less elongated, slender. 11.

11. Rostellum triangular, without diverging side lobes.

20 **STENOGLOTTIS**.



- Rostellum with elongated side lobes which carry the anther channels. 12.
12. Rostellum with a small tooth-like front lobe. **21 HABENARIA**  
Rostellum with a cucullate front lobe. **22 BONATEA.**
13. Glands of rostellum transversely connate. Lip spurred.  
Petals longer than the sepals. **17 HOLOTHRIX.**  
Glands of rostellum free. 14.
14. Petals clawed, concave, fimbriate. Lip not spurred.  
**18 HUTTONAEA.**  
Petals not clawed. 15.
15. Rostellum forming a narrow fold between the anther cells. 16.  
Rostellum broad, triangular below the anther cells. 17.
16. Column short. Lip spurred or saccate.  
(*Gymnadenia* R.Br.) **16 SCHIZOCHILUS.**  
Column long. Lip not spurred nor saccate.  
**14 BRACYCORYTHIS.**
17. Lip saccate or spurred. **15 PLATANThERA.**  
Lip not spurred. **20 STENOGLOTTIS.**
18. Pollinia soft, granular or powdery. 19.  
Pollinia firm waxy. 21.
19. Pollinia without stipes or gland. **13 POGONIA.**  
Pollinia with linear caudicle and gland. 20.
20. Pollinia connected with rostellum gland by a strap-shaped stalk. Front lobe of lip clawed. **11 ZEUXINE.**  
Pollinia adhering directly to rostellum gland. Front lobe of lip not dilated nor clawed. **12 PLATYLEPIS.**
21. Pollinia 4 or 8 united by a viscid appendage, free from the rostellum. Anther 2 celled. 22.  
Pollinia 2 or 4 attached to a stipes and gland of the rostellum. Anther cells usually confluent. 24.
22. Column produced into a foot at the base. Inflorescence axis dilated, almost leaflike. Pollinia 4. Epiphytic.  
**2 MEGACLINIUM.**  
Column footless. Inflorescence not dilated. Terrestrial. 23.
23. Pollinia 4. Flowers small, greenish. **1 LIPARIS.**  
Pollinia 8. Flowers showy. **3 CALANTHE.**
24. Terrestrial. Leaves plicate, acute. Column with a distinct foot. 25.  
Epiphytic. Column footless or leaves distichous and bilobed. 26.
25. Sepals narrow and less coloured than petals, usually reflexed. **5 LISSOCHILUS.**  
Sepals and petals equal or nearly so, spreading.  
**4 EULOPHIA.**
26. Lip not spurred or saccate. Leaves plicate acute. 27.  
Lip spurred or saccate at base. Leaves distichous, coriaceous and variously bilobed. 28.

27. Sepals and petals spreading, subequal. Lip inferior.

**6 ANSELLIA.**

Sepals and petals subconnivent unequal. Lip superior.

**7 POLYSTACHYA.**

28. Pollinia with 1 stipe and 1 gland.

**8 ANGRAECUM.**

Pollinia with 2 stipes and 1—2 glands.

29.

29. Pollinia with 2 stipes attached to 1 gland.

**9 LISTROSTACHYS.**

Pollinia with 2 stipes and 2 distinct glands.

**10 MYSTACIDIUM.**

**1. LIPARIS** L.C. Rich.

1. *bowkeri* Harv. Ngoma and near Richmond.

2. *gerrardi* Reichb. f.

**2. MEGACLINIUM** Lindl.

1. *sandersoni* Oliv. Midlands, on trees. Often in dense masses.

2. *scaberulum* Rolfe. Zululand.

**3. CALANTHE** R.Br.

*natalensis* Reichb.f. Coast and Midland Bush. Fairly common.

**4. EULOPHIA** R.Br. (Mostly in vleis; sometimes in grassveld).

1. *mackenii* Rolfe. Coastbelt.

2. *caffra* Reichb.f. Tugela Valley and Zululand.

3. *natalensis* Reichb.f. Coastbelt. Common.

4. *nutans* Sond. Ixopo.

5. *flaccida* Schltr. Coastbelt. Vleis.

6. *carunculifera* Reichb.f.

7. *laxiflora* Schltr. Coast to Drakensberg. Common.

8. *aemula* Schltr. Midlands and Drakensberg.

9. *longipes* Rolfe.

10. *purpurascens* Rolfe. Coast and Midlands. Common.

11. *gladioloides* Rolfe. Lidgetton. 3-4,000 ft.

12. *hians* Spreng. Coast to Drakensberg. Grassveld. Common.

13. *saundersiae* Rolfe.

14. *barbata* Spreng.

15. *robusta* Rolfe. Camperdown.

16. *dregeana* Lindl. Alexandra district, 2-3,000 ft. Grassveld.

17. *haygarthii* Rolfe. Camperdown, 2,000 ft.

18. *deflexa* Rolfe.

19. *acuminata* Rolfe. Estcourt.

20. *calanthoides* Schltr. Midlands and Drakensberg.

21. *subintegra* Rolfe. Drakensberg.

22. *woodii* Schltr. Near Berlin Mission.

23. *zeyheri* Hk.f. Coast to Drakensberg. Common.

24. **ensata** Lindl. Coast and Midlands. Common.
25. **leontoglossa** Reichb.f. Coast to Drakensberg.
26. **nigricans** Schltr. Inanda.
27. **inandensis** Rolfe. Inanda.
28. **bilamellata** Schltr. Inchanga and Zululand. Grassveld.  
**bilamellata** var **euryceras** Schltr. Emberton.
29. **oliveriana** Bolus. Coast to Drakensberg.
30. **inaequalis** Schltr. Coast and Midlands. Grassveld.
31. **papillosa** Schltr. Coast and Midlands. Vleis. Common.
32. **aculeata** Spreng.
33. **huttonii** Rolfe. Midlands.
34. **durbanensis** Rolfe. Near Dúrbán.
35. **foliosa** Bolus. Coast to Drakensberg.
36. **elegantula** Rolfe. Gillitts, 2,000 ft.
37. **micrantha** Ldl. (**Acrolophia micrantha** Schltr.) Umhlali.
38. **pergracilis** Rolfe. Near Howick.
39. **tenella** Reichb.f. Fairfield, Alexandra. 2,000 ft.
40. **triloba** Rolfe. Ginginhlovu.
41. **wyliei** Rolfe. Ginginhlovu.
42. **platypetala** Lindl. Alexandra County. 1,800 ft.
43. **speciosa** Bolus. Kosi Bush. N.E. Zululand.
5. **LISSOCHILUS** R.Br.
  1. **clitellifer** Reichb.f. Coast and Midlands. Common.
  2. **aequalis** Lindl. Coast and Midlands.
  3. **streptopetalus** Lindl.
  4. **speciosus** R.Br. Coastbelt bush. Common.
  5. **buchananii** Reichb.f. Coastbelt vleis.
  6. **sandersoni** Reichb.f. Coast and Midlands.
  7. **arenarius** Ldl. Coast and Midlands. Grassveld.
6. **ANSELLIA** Lindl. (Epiphytic).  
**gigantea** Reichb.f. Coastbelt bush.
7. **POLYSTACHYA** Hook. (Epiphytic).
  1. **rigidula** Reichb.f. Tugela Valley.
  2. **tricuris** Reichb.f. Tugela Valley.
  3. **similis**. Reichb.f. Coast and Midlands.
  4. **sandersonii** Harv. Coastbelt and Zululand.
  5. **natalensis** Rolfe. Richmond.
  6. **ottoniana** Reichb.f. Coast and Midlands.
  7. **pubescens** Reichb.f. Coast and Midlands.
  8. **gerrardi** Harv. Ngoma. Richmond.
  9. **pisobulbon** Kranzl.
8. **ANGRAECUM** Bory. (Epiphytic).
  1. **mystacidii** Reich.f. Coast and Midlands.
  2. **conchiferum** Ldl. Near Vryheid, 3-4,000 ft.
  3. **sacciferum** Ldl. Coast and Midlands.
  4. **pusillum** Ldl. Midlands and Zululand.

5. *tricuspe* Bolus. Zululand.
6. *bicaudatum* Ldl. Midlands and Zululand.
7. *tridentatum* Harv. Krantzklouf, 1,800 ft., on rocks.
8. *bolusii* Rolfe. Eshowe, Zululand.
9. *maudae* Bolus. Eshowe, Zululand.
10. *chiloschistae* Reichb.f. Coastbelt.
11. *culveri* Schltr. Ngoya, Zululand.
9. **LISTROSTACHYS** Reichb.f. (Epiphytic).
  - arcuata* Reichb.f. Coastbelt and Inanda.
10. **MYSTACIDIUM** Ldl. (Epiphytic).
  1. *gerrardi* Bolus. Coast and Midlands.
  2. *millari* Bolus. Coast bush.
  3. *caffrum* Bolus.
  4. *pusillum* Harv. Coastbelt.
  5. *venosum* Harv. Coastbelt and Zululand.
  6. *filicorne* Ldl. Coast and Midlands.
  7. *gracile* Harv. Midlands.
11. **ZEUXINE** Lindl.
  - cochlearis* Schltr. Mouth of Umgeni. Sandy vleis.
12. **PLATYLEPIS** A. Rich.
  - australis* Rolfe. Coastbelt.
13. **POGONIA** Juss (*Nervilia* Gaud.)
  - purpurata* Reichb.f. Ifafa, 1,800 ft.
14. **BRACHYCORYTHIS** Lindl.
  1. *ovata* Ldl. Coast to Drakensberg. Common.
  2. *allisoni* Rolfe. Drakensberg. Olivier's Hoek.
  3. *pubescens* Harv. Coast to Drakensberg.
  4. *tysoni* Bolus. (*Neobolusia*). Drakensberg. Olivier's Hoek. Boston.
  5. *virginea* Rolfe. Drakensberg. Van Reenen's.
15. **PLATANThERA** L.C. Rich.
  1. *tenuior* Schltr. Midlands.
16. **SCHIZOCHILUS** Sond.
  1. *zeyheri* Sond. Midlands.
  2. *sandersoni* Harv. Coastbelt.
  3. *trilobus* Rolfe. Dargle Farm.
  4. *flexuosus* Harv. Dargle Farm.
  5. *bulbinella* Bolus. Alexandra County. 3,000 ft.
  6. *angustifolia* Rolfe. Drakensberg. Common in vleis.
  7. *gerrardi* Bolus. Drakensberg. Ngoma.
17. **HOLOTHRIX** L. C. Rich.
  1. *incurva* Ldl. Drakensberg. Van Reenen.
  2. *parvifolia* Ldl. Van Reenen.
  3. *lindleyana* Reichb.f.
  4. *orthoceras* Reichb.f. Midlands and Drakensberg.
  5. *macowaniana* Reichb.f. Lion River, 3,000 ft.



6. *scopularia* Reichb.f. Drakensberg, 8-9,000 ft.
7. *multisecta* Bolus. Dargle Farm.
8. *thodei* Rolfe. Drakensberg.
18. **HUTTONAEA** Harv.
  1. *fimbriata* Reichb. Midlands and Drakensberg.
  2. *pulchra* Harv. Midlands.
  3. *woodii* Schltr. Midlands.
  4. *oreophila* Schltr. Midlands and Drakensberg.
  5. *grandiflora* Rolfe. Drakensberg.
19. **PERISTYLUS** Blume.
  - natalensis* Rolfe. Ngoma, on half-decayed trees.
20. **STENOGLOTTIS** Lindl.
  1. *fimbriata* Ldl. Coast to Drakensberg. Common.
  - fimbriata* var *saxicola* Schltr. Mount West.
  2. *longifolia* Hk. f. Zululand.
21. **HABENARIA** Willd.
  1. *arenaria* Ldl. Springvale.
  2. *natalensis* Reichb.f. Midlands and Zululand.
  3. *anguiceps* Bolus. Van Reenen.
  4. *foliosa* Reichb.f. Coast to Drakensberg. Common.
  5. *laevigata* Ldl. Near Kokstad.
  6. *ciliosa* Ldl. Midlands.
  7. *tridens* Ldl. Midlands.
  8. *woodii* Schltr. Ngoya, Zululand.
  9. *malacophylla* Reichb.f. Midlands and Drakensberg.
  10. *transvaalensis* Schltr. Near Estcourt.
  11. *polypodantha* Reichb.f. Midlands. Thorn veld.
  12. *orangana* Reichb.f. Drakensberg, Olivier's Hoek.
  13. *dives* Reichb.f. Coast and Midlands. Common.
  14. *falcicornis* Bolus. Coast and Midlands. Common.
  15. *tetrapetala* Kranzl. Coast to Drakensberg. Common.
  16. *cornuta* Ldl. Midlands and Drakensberg. Common.
  17. *involuta* Bolus. Coastbelt.
  18. *porrecta* Bolus. Coast and Midlands.
  19. *clavata* Reichb.f. Midlands.
  20. *dregeana* Ldl. Coast to Drakensberg. Common.
  21. *tysoni* Bolus.
  22. *kraenzliniana* Schltr. var *natalensis* Rolfe. Midlands.
22. **BONATEA** Willd.
  1. *saundersiae* Dur. and Schinz. Coastbelt.
  2. *boltoni* Bolus. Coast to Drakensberg. Common.
  3. *speciosa* Willd. Coast and Midlands.
23. **CYNORCHIS** Thonars.
  - compacta* Rolfe. Rocks near Gillitts. 2,000 ft.
24. **SATYRIUM** Sw.
  1. *fanniniae* Rolfe. Dargle.

2. **atherstonei** Reichb.f. Coast to Drakensberg. Common.
3. **parviflorum** Sw. Coast and Midlands.
4. **aphyllum** Schltr. Coast and Midlands.
5. **neglectum** Schltr. Drakensberg.
6. **woodii** Schltr. Coast and Midlands.
7. **longicauda** Ldl. Coast to Drakensberg. Common.
8. **cristatum** Sond. Coast to Drakensberg. Common.
9. **sphaerocarpum** Ldl. Coast and Midlands.
10. **ocellatum** Bolus. Midlands and Drakensberg.
11. **erectum** Sw.
12. **macrophyllum** Ldl. Coast and Midlands. Common.
13. **rhodanthum** Schltr. Fairfield, Alexandra County.

## 25. DISA Berg.

1. **filicornis** Thb. (*Penthea filicornis* Ldl.) Oakford.
2. **obtusa** Ldl. Umgeni River.
3. **tysoni** Bolus. Kokstad.
4. **stachyoides** Reichb.f. Coast to Drakensberg. Common.
5. **aconitoides** Sond. Midlands. Common.
6. **fragrans** Schltr. Drakensberg.
7. **polygonoides** Ldl. Coast and Midlands. Common.
8. **chrysostachya** Sw. Midlands and Drakensberg.
9. **extinctoria** Reichb.f. Midlands and Drakensberg.
10. **macowani** Reichb.f. Midlands and Drakensberg.
11. **laeta** Reichb.f. Midlands. Vleis.
12. **rhodantha** Schltr. Midlands and Drakensberg. Vleis.
13. **zuluensis** Rolfe. Zululand.
14. **cooperi** Reichb.f. Midlands and Drakensberg.
15. **crassicornis** Ldl. Midlands and Drakensberg.
16. **frigida** Schltr. Mont-aux-Sources.
17. **tripetaloides** N.E. Br. Murchison, 2,000 ft.
18. **sagittalis** Sw.
19. **cephalotes** Reichb.f. Drakensberg.
20. **gerrardi** Rolfe.
21. **oreophila** Bolus. Drakensberg.
22. **saxicola** Schltr.
23. **montana** Sond. Near Kokstad.
24. **patula** Sond. Midlands and Drakensberg.
25. **nervosa** Ldl. Midlands and Drakensberg.
26. **kraussii** Rolfe. Midlands.
27. **fanniniae** Harv. Midlands.
28. **pulchra** Sond. Midlands and Drakensberg.
29. **capricornis** Reichb. Mts. near Kokstad.
30. **stricta** Sond.
31. **brevicornis** Bolus. (*Monadenia brevicornis* Ldl.)  
Inanda.

32. *baurii* Bolus. (*Herschelia baurii* Kränzl). Ngoya and Drakensberg.

26. **BROWNLEEAE.** Harv.

1. *parviflora* Harv. Midlands and Drakensberg.
2. *galpini* Bolus. Drakensberg.
3. *recurvata* Sond.
4. *natalensis* Rolfe. Byrne.
5. *woodii* Rolfe. Murchison. Stony bush.
6. *coerulea* Harv. Midlands and Drakensberg.
7. *fanniniae* Rolfe. Dargle farm.

27. **PTERYGODIUM** Sw.

- hastatum* Bolus. Drakensberg.

28. **CORYCIUM** Sw.

1. *carnosum* Rolfe. Howick.
2. *tricuspidatum* Bolus. Near Charlestown.
3. *magnum* Rolfe. Midlands and Drakensberg.
4. *nigrescens* Sond. Coast to Drakensberg.

29. **DISPERIS.**

1. *buchanani* Rolfe. Richmond.
2. *natalensis* Rolfe. Dargle Farm.
3. *allisoni* Rolfe. Olivier's Hoek, Drakensberg.
4. *kermisina* Rolfe. Olivier's Hoek.
5. *tysoni* Bolus. Drakensberg.
6. *anomala* Schltr. Nottingham Road. Grassveld.
7. *concinna* Schltr. Mohlamba Range. 5-6,000 ft.
8. *wealii* Reichb.f. Polela.
9. *bicolor* Rolfe. Olivier's Hoek, Drakensberg.
10. *flava* Rolf. Olivier's Hoek.
11. *oxyglossa* Bolus. Midlands.
12. *cardiophora* Harv. Coast to Drakensberg.
13. *macowani* Bolus. Drakensberg. Van Reenen.
14. *lindleyana* Reichb.f.
15. *fanniniae* Harv. Midlands and Drakensberg. Common.
16. *anthoceros* Reichb.f. Midlands.
17. *woodii* Bolus. Coast and Midlands.
18. *stenoglossa*. Coastbelt, vleis and sand dunes.
19. *venusta* Schltr. Van Reenen.
20. *cooperi* Harv. Drakensberg and Dargle.

**DICOTYLEDONEAE—ARCHICHLAMYDEAE.**

**FAMILY 28—PIPERACEAE.**

Herbs or shrubs, erect or climbing. Flowers hermaphrodite or unisexual, minute, in dense spikes, each subtended by a peltate bract. Perianth absent. Stamens 2—6. Ovary 1 celled. Ovule

1, basal straight. Fruit a berry. Seeds endospermic. 2 genera 5 species.

1. Stigmas 2—3. Shrubs or undershrubs.

**1 PIPER.**

Stigma 1. Herbs.

**2 PEPEROMIA.**

**1. PIPER L.** "Hlolane." "uPogwana."

1. **capense** L. Common in coast and Midland bush.

2. **borbonense** C.DC.

**2. PEPEROMIA.** Ruiz & Pav.

1. **reflexa** A. Dietr. Common coast to Drakensberg, usually on trees.

**reflexa** var **capensis** C.DC.

2. **arabica** Decsne. Coastbelt.

3. **retusa** A. Dietr. Upper districts.

## FAMILY 29—SALICACEAE.

Trees or shrubs. Leaves alternate, stipulate. Flowers in catkins, dioecious. Perianth 0. Disc cup shaped or reduced to 1 or more scales. Stamens 2 or more. Ovary 1 celled with 2 or more parietal placentas. Ovules inverted. Stigmas 2—4. Fruit capsular. Seeds exendospermic, with basal tuft of hairs. 1 genus 1 species.

**SALIX L.**

**woodii** Seem. Near Colenso, 3-4,000 ft. "umZezana."

## FAMILY 30—MYRICACEAE.

Trees, shrubs or undershrubs. Leaves simple, exstipulate. Flowers in spikes, unisexual. Perianth 0. Bracteoles 2—6. Stamens 2—12, usually 4. Ovary 1 celled. Ovule 1, erect straight. Styles 2. Fruit a drupe. Seeds exendospermic. 1 genus 2 species.

**MYRICA L.**

1. **conifera** Burm.f. (**aethiopica** L.) Coast and Midlands. Along streams.

2. **sp.** Drakensberg.

## FAMILY 31—ULMACEAE.

Trees or shrubs. Leaves alternate, stipulate, usually 3 nerved at the base. Flowers hermaphrodite or unisexual. Perianth of 4—5 segments. Stamens 4—5 opposite P. segments. Ovary superior, 1 celled. Ovule 1 pendulous inverted. Stigmas 2. Fruit a nut or drupe. Seed exendospermic or with a little endosperm. 3 genera 5 species.

1. Stipules united, sheathing the buds. Spiny shrub.

**3 CHAETACME.**

Stipules free. Spineless.

2.



2. Stigmas feathery. Upper flowers long stalked. **1 CELTIS.**  
Flowers almost sessile. Pedicels less than 1 lin. long.

**2 TREMA.****1. CELTIS L.** "umVumvu."

1. **franksae** N.E.Br. Tree 30ft. Near Durban.

2. **rhamnifolia** Presl (Camdeboo Stinkwood.) Tree 20—80ft.  
high, common in forest, occasional in tree veld. Coast  
to high altitudes on Drakensberg.

**2. TREMA** Lour. "uBatini." "umPangazi." "umVangazi."  
"Pengapenga." "umCabegazane."

**bracteolata** Blume. Shrub or small tree. Common in forest  
all over. Occasional in tree veld.

**3. CHAETACME** Planch. "umBambangwe." "inKombota."  
"umKhovothi."

1. **aristata** Planch. Common in coast scrub.

2. **serrata** Engl. Coastbelt.

**FAMILY 32—MORACEAE.**

Trees, shrubs and herbs. Leaves stipulate. Flowers unisexual.  
Perianth simple or wanting. Stamens 1—many. Ovary 1 celled.  
Ovule 1 pendulous. 2 genera 12 species.

1. Herb. Flowers in spikes or panicles.

**1 CANNABIS.**

Trees rarely undershrubs. Flowers in pouch-like receptacles  
(Figs), juice milky

**2 FICUS.****1. CANNABIS** Tourn. "inTsangu."

**sativa** L. Indian Hemp. Common around kafir kraals.

**2. FICUS L.**

1. **sycomorus** L.

2. **capensis** Thb. Common. Often dominant in hygrophilous  
bush. Coast to Drakensberg.

3. **ingens** Miq. (**lutea** Vahl.)

4. **cordata** Thb. Midlands and Drakensberg.

5. **capreaefolia** Dil. Zululand.

6. **polita** Vahl. Stella Bush, Durban.

7. **nekbudu** Warb. Zululand. Common. "uLusi."

8. **stuhlmanii** Warb. Inchanga.

9. **natalensis** Hochst. Coast and Midlands. Common.  
"umTombe."

10. **burt-davyi** Hutch. Maritzburg.

11. **soldanella** Warb. Lower Mooi River.

**FAMILY 33—URTICACEAE.**

Trees, shrubs or herbs. Leaves usually stipulate. Flowers  
unisexual, rarely polygamous. Perianth simple, of 1—5 segments,  
or wanting in female flowers. Stamens 1—5. Filaments broad-

ened at base. Ovary 1 celled. Ovule 1, erect or ascending, straight. Style 1 or 0. Fruit indehiscent. Seed usually endospermic. 6 genera 8 species.

1. Stamen 1. Hairs not stinging. Stipules free.

**5 AUSTRALINA.**

Stamens 2—5.

2.

2. Stipules and stinging hairs absent. Leaves entire.

**6 PARIETARIA.**

Stipules present, or if rudimentary, then leaves toothed. 3.

3. Stinging hairs absent. Perianth of female flowers winged or ribbed, surrounding fruit. Leaves entire.

**4 POUZOLZIA.**

Stinging hairs present.

4.

4. Leaves opposite.

**1 URTICA.**

Leaves alternate.

5.

5. Stigma linear or oblong. Annual herbs.

**2 FLEURYA.**

Stigma penicillate, capitate. Shrubs.

**3 URERA.**

1. **URTICA** (L.) Gaudich.

*urens* L. Common weed in waste places. (Nettles.)

"imBabazane."

2. **FLEURYA** Gaudich.

1. *grossa* Wedd. Umhloti, 1,000 ft.

2. *capensis* Wedd. Inanda. Coast and Midlands.

3. **URERA** Gaudich. "imPongozembe."

1. *tenax* N.E.Br. Coast and Midlands. "Bogozembe."

2. *woodii* N.E. Br. Umzinyati Falls.

4. **PARIETARIA** Tourn.

*pilosa* Willd. Open ground. Coast and Midlands.

5. **AUSTRALINA** Gaudich.

*acuminata* Wedd. Coastbelt. Bush.

6. **POUZOLZIA** Gaudich.

*parasitica* Schweinf. (*procridioides* Wedd). Thorn veld and scrub. Mooi River.

**FAMILY 34—PROTEACEAE.**

Trees or shrubs (rarely herbs). Leaves usually alternate exstipulate. Perianth of 4 segments. Stamens 4 opposite P. segments. Ovary superior 1 celled. Ovule 1, rarely 2. Style 1. Fruit a nut or drupe. Seeds exendospermic. 3 genera 12 species.

1. Flowers spicate.

**3 FAUREA.**

Flowers in a head.

2.

2. Anterior perianth segments separating above. Style deciduous.

Fruit glabrous.

**1 LEUCOSPERMUM.**

Anterior perianth segments united almost to the top into a lip. Style persistent. Fruit covered with dense hairs.

**2 PROTEA.**

**1. LEUCOSPERMUM** R.Br.

*gerrardi* Stapf. Only one uncertain record. (Gerrard.)

**2. PROTEA** L. "isiQalaba."

1. *rouPELLIAE* Meisn. Dominant over considerable areas of "Protea Veld," in the Drakensberg. Also on Midland mountains.

2. *subvestita* N.E. Br. Van Reenen. Mawakqa.

3. *abyssinica* Willd. Drakensberg.

4. *hirta* Klotsch. Coast to Drakensberg. "isiHlunga."

5. *multibracteata* Phillips. Midlands and Drakensberg.

6. *natalensis* Phillips. Between Umlaas River and Durban.

7. *flanagani* Phillips. Polela and Karkloof.

8. *simplex* Phillips.

9. *lanceolata* E.M. Karkloof and Drakensberg.

**3. FAUREA.** Harv.

1. *saligna* Harv. Dominant near Pinetown and elsewhere in Midlands on sandy soil. "umCalatole."

2. *macnaughtoni* Phillips. Ngomi forest. "Tato."

**FAMILY 35—SANTALACEAE.**

Trees, shrubs or herbs, often parasitic. Leaves usually alternate, entire exstipulate. Flowers small, regular, usually hermaphrodite. Perianth simple. Stamens 3—6. Ovary inferior, 1 celled. Ovules 2—3 pendulous. Style simple or wanting. Stigma capitate or 2—3 lobed. Fruit indehiscent, dry or fleshy. Seeds without a testa, endospermic. 3 genera 21 species.

1. Fruit dry. Hemiparasitic herbs or undershrubs. **1 THESIMUM**  
Fruit succulent. Shrubs or trees. **2.**

2. Flowers hermaphrodite. Perianth tube elongate. Two lateral veins of leaf prominent. **2 OSYRIDOCARPUS.**

Flowers dioecious or sub-dioecious. Perianth tube above ovary scarcely present. Only midrib of leaf prominent.

**3 OSYRIS.****1. THESIMUM** L. (Mostly in grassveld, parasitic on grasses.)

1. *virens* E. M.

2. *costatum* A. W. Hill. Common all over.

*costatum* var *juniperinum* A.W.H. Natal and Zululand.

3. *racemosum* Bernh. Common in Midlands.

4. *angulosum* A. DC. Coast and Midlands. Common.

5. *triflorum* Thb. Midlands.

6. *floribundum* A.W.H. Coast and Midlands. Common.

7. *pallidum* A. DC. Drakensberg.

8. *cupressoides* A.W.H. Niginya, 5,500 ft.

9. *imbricatum* Thb. Niginya, 5,500 ft.

10. *natalensis* Sond. Coast and Midlands. Common.

11. *scirpioides* A.W.H. Coast and Midlands. Common.

12. **impeditum** A.W.H. Coast and Midlands. Common.
13. **orientale** A.W.H. Near Kokstad.
14. **lobelioides** A. DC. Hoffenthal, 4,000 ft.
15. **nigrum** A.W.H. Midlands and Drakensberg. Common.
16. **asterias** A.W.H. Midlands.
17. **polygaloides** A.W.H. Coastbelt. Vleis.
18. **cornigerum** A.W.H. Coast and Midlands.
19. **gypsophylloides** A.W.H. Coastbelt.

## 2. **OSYRIDOCARPUS**. A.DC.

**natalensis** A.DC. Coast to Drakensberg. Half-climbing shrub.

## 3. **OSYRIS**. L. "inTshakasa." "umBulunyati."

**abyssinica** Hochst. (**Colpoos compressum** Berg.) Shrub. Coast to Drakensberg. Occasional in Thorn veld.

# FAMILY 36—OLACACEAE.

Trees or shrubs. Leaves entire. Flowers regular. Calyx small. Petals 4—5. Stamens 8-10. Ovary superior. Ovules 1—5 pendulous. Style simple. Fruit indehiscent. Seed 1 endospermic. 1 genus 1 species.

**XIMENIA** Plum. "umTunduluka." "Matimdolubu." "Manumbalo."

**caffra** Sond. Coastbelt.

# FAMILY 37—LORANTHACEAE.

Parasitic shrubs. Leaves undivided, exstipulate. Perianth simple, but often surrounded by an apparent calyx, an outgrowth of the receptacle. Perianth segments 2—6. Stamens 2—6, inserted on P. segments. Ovary inferior, usually without distinct placentas. Ovules 1—4, indistinct. Style simple or 0. Fruit succulent. Seeds with or without endosperm. 2 genera 17 species.

1. Flowers hermaphrodite. "Calyx" more or less developed. style long.

## 1 **LORANTHUS**.

Flowers unisexual. "Calyx" obsolete. Style short or 0.

## 2 **VISCUM**.

## 1. **LORANTHUS** L.

1. **woodii** Schltr. and Krause. Krantzklouf. Ngoya on **Burchellia capensis**.
2. **subcylindricus** Sprague. Umtwalumi on **Ochna arborea**. Nkandhla.
3. **dregei** E. Z. Coast and Midlands. Fairly common.
4. **wyliei** Sprague. Ngoya, Zululand.
5. **quinquenervis** Hochst. Coastbelt.
6. **natalitius** Meisn. Coast and Midlands. "umHlalabenyoni."



7. **minor** Sprague. Coast and Midlands and Zululand. (Qudeni).
8. **kraussianus** Meisn. Coast and Midlands. Fairly common.
9. **oleifolius** Ch. and Schltr. Ifafa, 1,500 ft.

## 2. VISCUM L.

1. **obovatum** Harv. Coastbelt.
2. **pulchellum** Sprague. Tugela Valley.
3. **suberratum** Schltr. Tugela Valley.
4. **nervosum** Hochst. Coast and Midlands, frequent.
5. **obscurum** Thb.
6. **rotundifolium** L.f. Thorn veld.
7. **anceps** E. M. Thorn veld.
8. **verrucosum** Harv. Thornveld.

## FAMILY 38—POLYGONACEAE.

Herbs or shrubs. Leaves alternate with base of petiole dilated into membranous sheath. Flowers regular, hermaphrodite or polygamo-dioecious. Perianth segments 3—6. Stamens 4—50, usually 6—9. Anthers 3 celled. Ovary superior 1 celled. Ovule 1 basal, straight. Styles 2—4. Fruit a nut. Seeds with mealy endosperm. 4 genera 22 species.

1. Stamens 4—6. Anthers versatile. Stigma capitate. 2.  
Stamens more than 6 (usually 8). Anthers erect, Stigma not capitate. 3.

2. Outer 3 lobes of perianth in fruit largest, spinous. 4 **EMEX**.  
Outer 3 lobes of perianth in fruit smallest, not spinous.

### 3 RUMEX.

3. Perianth segments united below into a narrow tube. Nuts 3 winged.

### 1 OXYGONUM.

Perianth segments not united below into a narrow tube.

Nuts not 3 winged.

### 2 POLYGONUM.

## 1. OXYGONUM. Burch.

1. **dregeanum** Meisn. Coast and Midlands.
2. **alatum** Burch. Near Maritzburg.
3. **natalense** Schltr. Fairfield, Alexandra County, 2,400 ft.

## 2. POLYGONUM L.

1. **aviculare** L. Midlands and Drakensberg.
2. **alatum** Buch-Ham. Near Byrne.
3. **serrulatum** Lag. Coast to Drakensberg. Common.
4. **lanigerum** R.Br. Moist places on coastbelt.
5. **tomentosum** Willd. Coast and Midlands. Common.
6. **lapathifolium** L. subsp. **maculatum** Dyer. Coast to Drakensberg. Common in vleis.
7. **strigosum** R.Br.
8. **acuminatum** Kth. var **capense** Meisn. Alexandra County.
9. **minus** Hads.

**3. RUMEX L.**

1. *nepalensis* Spreng. Drakensberg swamps.
2. *sagittatus* Thb. Coast and Midlands.
3. *acetosella* L. Midlands. Common weed.
4. *ecklonianus* Meisn. Midlands. "Dololenkonyane."
5. *dregeanus* Meisn. Coastbelt.
6. *woodii* N.E.Br. Coast to Drakensberg.
7. *obtusifolius* L. Introduced weed. Doubtful.
8. *natalensis* Dam. sp. nov. Alexandra County.
9. *lanceolatus* Thb. Maritzburg.

**4. EMEX Neck. (Rigid herbs.) "inKunzana."**

- australis* Steinh. Near Durban. Weed.

**FAMILY 39—CHENOPODIACEAE.**

Herbs. Leaves exstipulate or wanting. Flowers inconspicuous, greenish. Perianth simple, 1—5 segments, rarely wanting. Stamens 1—5. Ovary superior, 1 celled. Ovule 1 on a basal funicle curved. Stigmas 2—5. Seed endospermic. Embryo curved. 3 genera, 6 species.

1. Stems or branches jointed, apparently leafless. Flower clusters apparently sunk in hollows of branch joints.

**3 SALICORNIA.**

Stems or branches not jointed. Leaves well developed. 2.

2. Perianth 5 parted, more or less herbaceous. Leaves expanded, petiolate.

**1 CHENOPODIUM.**

Perianth globose, 4—5 lobed, membranous. Leaves narrow. sessile.

**2 CHENOLEA.****1. CHENOPODIUM Linn.**

1. *ambrosoides* L. A common weed.
2. *botrys* L. Midlands. Common weed.
3. *murale* L. Common weed. "umDonqabatwa."

**2. CHENOLEA Thunb.**

*diffusa* Thunb. Forming clumps on mudflats in brackish water at river mouths.

**3. SALICORNIA Linn.**

1. *herbacea* L. Common along seashore.
2. *natalensis* Bunge. Durban Bay.

**FAMILY 40—AMARANTACEAE.**

Herbs. Leaves exstipulate. Perianth simple of 3—5 segments. Stamens 3—5, opposite perianth segments. Filaments united at base, or in a tube. Staminodes often alternating with stamens. Ovary superior, 1 celled. Ovules 1 or more, basal. Fruit a utricle, rarely a berry. Seeds endospermic. Embryo annular. 12 genera 24 species.

1. Ovules 2 or more. Anthers 2 celled. Leaves alternate. 2.  
Ovules solitary. 3.
2. Filaments united at base. Staminodes 0 or very short.

**1 CELOSIA.**

Filaments united high up. Staminodes longer than filaments.

**2 HERMBSTAEDIA.**

3. Anthers 2 celled. 4.  
Anthers 1 celled. 11.

4. Ovule erect, funicle short. **3 AMARANTUS.**  
Ovule on a long basal funicle (pendulous). 5.

5. Flowers 2 or more in axil of each bract, usually some sterile  
or reduced to spines. 6.

Flowers solitary in axil of each bract, bi-bracteolate. All hermaphrodite. 8.

6. Staminodes none. **6 PUPALIA.**  
Staminodes present. 7.

7. Fruit horned, sterile flowers reduced to straight spines.

**4 CYPHOCARPA.**

Fruit not horned, spines hooked.

**5 CYATHULA.**

8. Staminodes none. **7 PSILOTRICHUM.**  
Staminodes present. 9.

9. Perianth woolly. **8 AERVA.**  
Perianth glabrous or scantily hairy. 10.

10. Filaments connate into a long tube. **9 ACHYRANTHES.**  
Filaments connate at the base. **10 ACHYROPSIS.**

11. Stigma 1, capitate. **11 ALTERNANTHERA**  
Stigmas 2, linear. **12 GOMPHRENA.**

**1. CELOSIA** Linn.

1. *trigyna* Linn. Margins of coast. Bush.

2. *triloba* E.M.

**2. HERMBSTAEDIA.** Reichb.

1. *caffra* Moquin. Margins of coast. Bush.

**3. AMARANTUS** Linn. "imBuya."

1. *spinosus* L. Common. Coast and Midlands.

2. *paniculatus* L. Midlands. Cultivated in India for its grain.

3. *thunbergii* Moquin. Common all over.

**4. CYPHOCARPA** Lopr.

1. *trichinioides* Lopr. Coast and Midlands.

2. *angustifolia* Lopr. Thornveld, near Mooi River.

**5. CYATHULA** Lour.

1. *cylindrica* Moquin. Common all over.

2. *globulifera* Moquin. Coast and Midlands.

3. *natalensis* Sond. Durban.

4. *spathulifolia* Lopr. Coastbelt.

**6. PUPALIA** Juss.

1. *atropurpurea* Moquin. Coastbelt.

2. **lappacea** Juss. Thornveld, near Weenen.
7. **PSILOTRICHUM** Blume.  
*africanum* Oliv. Coastbelt.
8. **AERVA** Forsk.  
*lanata* Juss. Coastbelt.
9. **ACHYRANTHES** Linn.  
 1. *aspera* L. A very common weed, all over.  
 2. *robusta* C.H. Wright. Coastbelt.  
 3. *acuminata* E. Meyer. Doubtful.
10. **ACHYROPSIS** Hook f. Near Durban.  
 1. *avicularis* Hook f. Near Durban.  
 2. *leptostachya*. Coast scrub
11. **ALTERNANTHERA** Forsk.  
*sessilis* R.Br. Coastbelt weed.
12. **GOMPHRENA** Linn. Weed. Common all over.  
*globosa* Linn. Common all over.

### FAMILY 41—NYCTAGINACEAE.

Herbs or shrubs. Leaves usually opposite, entire, exstipulate. Flowers regular. Perianth simple, but often with a calyx-like involucre, 3—6 lobed, monophyllous. Stamens 1—30. Filaments free or connate at base. Ovary superior, 1 celled. Ovule 1, erect, inverted. Style 1, lateral. Fruit a nut, enclosed by persistent base of perianth. Seed endospermic. Embryo straight or curved. 3 genera 6 species.

1. Seed with straight embryo. Spiny scandent shrub.

#### 3 PISONIA.

Seed with curved embryo. Herbs not spiny. Leaves opposite. 2.

2. Bracts connate like a 5-lobed calyx, large. **1 MIRABILIS.**

Bracts small, free, often deciduous.

#### 2 BOERHAAVIA.

1. **MIRABILIS** L.

*jalapa* L. "Four o'clocks" or "Marvel of Peru." Common weed.

2. **BOERHAAVIA** Vaill.

1. *bracteata* T. Cooke. Tugela.

2. *repens* L. Thorn veld, near Weenen.

3. *adscendens* Willd. The Bluff, near Durban.

4. *pentandra* Burch. Coast and Midlands.

3. **PISONIA** L.

*aculeata* L. Tugela. Dry valley scrub.

### FAMILY 42—PHYTOLACCACEAE.

Herbs or shrubs, erect or climbing. Leaves alternate, entire. Stipules small or 0. Flowers in spikes on racemes, bracteolate. Perianth 4—5 parted herbaceous or membranous (rarely coloured), persistent in fruit. Stamens 3—33, hypogynous. Filaments free



or united at base. Ovary superior, 1—12 celled, or of free carpels. Ovules 1 in each carpel, basal, curved. Seeds endospermic. Embryo annular. 1 genus 3 species.

### PHYTOLACCA L.

1. **heptandra** Retz. Herb 1—3 ft. Midlands and Drakensberg.
2. **dodecandra** L'Herit. Woody climber. Coast and Midlands.
3. **octandra** L. Herb. 2—3 ft. Common weed.

## FAMILY 43—AIZOACEAE.

Herbs or undershrubs. Flowers regular. Perianth simple or of calyx and corolla. Stamens 3 or more. Ovary usually several celled. Ovules curved or inverted. Fruit dry. Seed with mealy endosperm. Embryo curved. 7 genera 16 species.

1. Perianth free from ovary, divided to base, or nearly so. 2.  
Perianth with a distinct tube, sometimes adnate to ovary, simple. 6.
2. Ovary 2 celled. Style 2 cleft. Fruit separating into 2 nutlets.

### 1 LIMEUM.

Ovary 3—7 celled. 3.

3. Ovary cells 1 ovuled. Perianth simple. 2 **PSAMMOTROPHA**.  
Ovary cells more than 1 ovuled. 4.
4. Leaves exstipulate, fleshy. Petals usually many. 3 **ORYGIA**.  
Leaves stipulate. Petals none, but stamens sometimes mixed with staminodes. 5.

5. Stipules membranous, entire. Capsule loculicidal.

### 4 MOLLUGO.

Stipules fringed. Capsule with a stellate opening at apex.

### 5 PHARNACEUM.

6. Ovary superior.

### 6 AIZOON.

Ovary inferior.

### 7 MESEMBRIANTHEMUM.

### 1. LIMEUM L.

1. **viscosum** Fenzl. Near Durban.
2. **natalense** Schellenb. Coastbelt.

### 2. PSAMMOTROPHA E. and Z.

1. **androsacea** Fenzl. Drakensberg.  
**androsacea** var **enervis** Fenzl. Drakensberg.
2. **myriantha** Sond. Midlands and Drakensberg. Common in open grassveld and stony places.

### 3. ORYGIA Forsk.

**decumbens** Forsk. Midlands. Common.

### 4. MOLLUGO L.

**oppositifolia** L.

### 5. PHARNACEUM L.

**distichum** Thb. Bluff, near Durban.

**6. AIZOON L.**

1. *canariense* L. Coastbelt.
2. *glinoides* L.f.

**7. MESEMBRIANTHEMUM L.**

1. *edule* L. Dominant in large consociations along seaward margins of sand dune bush. "Khambi lamabulawo."
2. *hirtum* N.E.Br. Midlands and Drakensberg.
3. *uncinellum* Salm-Dyck. Zululand.
4. *sutherlandi* Hk.f.
5. *cordifolium* L.f. Camperdown.
6. *tradescantoides* Berger. Inchanga, 2,100 ft.
7. *nubigenum* Schltr. Drakensberg. Rock fissures, 8,500 ft.

**FAMILY 44—PORTULACACEAE.**

Herbs or shrubs. Flowers regular or nearly so, hermaphrodite. Sepals 2. Petals 4—6 free or united at base. Stamens 3—30. Ovary superior or inferior, 1 celled. Ovules basal or placenta free-central. Ovules curved. Fruit a capsule or nut. Seeds endospermic. 2 genera 5 species.

1. Ovary inferior or half inferior. Ovules many. **1 PORTULACA**
- Ovary superior. Ovule 1. **2 PORTULACARIA.**

**1. PORTULACA L.**

1. *oleracea* L. Coastbelt. Common. Introduced. Ruderal.
2. *caffra* Thb. Rocky hill, Inanda, 2,000 ft.
3. *pilosa* L.
4. *quadrifida* L. Entumeni, Zululand.

**2. PORTULACARIA. Jacq. "Spekboom." "inTelisi."**

- afra* Jacq. Not uncommon in Thorn veld areas, in places dominant. Coast and Midlands.

**FAMILY 45—CARYOPHYLLACEAE.**

Herbs or undershrubs. Leaves undivided. Flowers regular, hermaphrodite. Perianth of calyx and corolla, rarely simple. Stamens 1—10. Ovary 1 celled or incompletely 2—5 celled superior. Ovules on basal or central placentas, curved or inverted. Seeds endospermic. Embryo curved. 10 genera 14 species.

1. Calyx tubular, 4—5 toothed. Petals clawed. 2.
- Sepals free, or united at base. Petals not distinctly clawed. 3.
2. Calyx bracteate at base. Styles or stigmas 2.

**1 DIANTHUS.**

Calyx nude at base. Styles 3—4.

**2 SILENE.**

3. Flowers minute. Petals 0 or scale-like. Leaves with scarious stipules. (*Illecebraceae*.) 4.
- Flowers fairly conspicuous. Petals fairly large. 5.

4. Ovule 1. Leaves alternate. Petals scale-like.

**3 CORRIGIOLA.**

- Ovules 2 or 4. Leaves opposite or whorled. Petals 0.

**4 POLLICHIA.**

5. Styles united below.

- Styles free from the base.

6. Petals 2 parted.

**8 DRYMARIA.**

- Petals entire, notched, or 2 toothed.

7. Sepals rounded on back. Style long or rather long.

**9 POLYCARPAEA.**

- Sepals sharply keeled. Style short, 3 cleft.

**10 POLYCARPON.**

8. Leaves with scarious stipules.

**7 SPERGULA.**

- Leaves exstipulate.

9. Styles 2—3, rarely 4—5, alternating with sepals. Fruit globose.

**5 STELLARIA.**

- Styles 5, rarely 3—4, opposite sepals. Fruit cylindrical.

**6 CERASTIUM.**

**1. DIANTHUS L.**

1. *prostratus* Jacq. Common. Coast and Midlands.

2. *scaber* Thb. Drakensberg.

**2. SILENE L.**

1. *burchelli* Ott. Common. Coast to Drakensberg.

2. *capensis* Ott. Drakensberg.

3. *gallica* L. Introduced.

4. *thunbergiana* E. & Z. Durban.

**3. CORRIGIOLA L.**

- littoralis* L. Coastbelt, often Ruderal.

**4. POLLICHIA Soland.**

- campestris* Soland. Ibisi, 2,500 ft.

**5. STELLARIA L.**

- media* Cyrill. An introduced weed.

**6. CERASTIUM L.**

- dregeanum* Fenzl. Midlands and Drakensberg. Common.

**7. SPERGULA L.**

- arvensis* L. An introduced weed.

**8. DRYMARIA Willd.**

- cordata* Willd. Coastbelt and Midlands.

**9. POLYCARPAEA Lam.**

- corymbosa* Lam. Umhlanga, 500 ft.

**10. POLYCARPON Loebl.**

- tetraphyllum* L. Ruderal.

**FAMILY 46—NYMPHAEACEAE.**

Aquatic plants with submerged prostrate rootstocks, throwing up leaves and flowers. Leaves floating, cordate. Flowers

solitary hermaphrodite, large and showy. Sepals 3 or more. Petals usually numerous. Stamens many. Carpels 6 or more, distinct or united into a many-celled ovary. Seeds endospermic. 1 genus 2 species.

**NYMPHAEA** (L.) Smith. "iZibu."

1. **capensis** Thb. (**stellata** Willd). Midlands and Drakensberg.
2. **madagascariensis** DC. (? or near it). Coastbelt. (Figured in Medley Wood's Natal Plants, p. 33, as **N. stellata** Willd).

## FAMILY 47—CERATOPHYLLACEAE.

Aquatic herbs. Leaves whorled, deeply divided into forked linear segments. Flowers unisexual. Perianth simple; segments 9—12 united at base. Stamens 12—16. Ovary superior 1 celled. Ovule 1, pendulous straight. Style 1. Fruit a nut. Seeds endospermic. 1 genus 1 species.

**CERATOPHYLLUM** L.

**demersum** L. Fairly common. Coastbelt and Zululand.

## FAMILY 48—RANUNCULACEAE.

Herbs, shrubs or climbers. Leaves usually divided. Perianth simple or of calyx and corolla. Stamens many. Carpels hypogynous or many, usually free. All parts usually spirally arranged. Ovules inverted. Seeds endospermic. 5 genera 14 species.

1. Petals with a pit or scale at the base or middle.

Sepals green.

**2 RANUNCULUS.**

Petals without a pit or scale.

2.

2. Leaves opposite. Slender shrubs, usually climbing.

**1 CLEMATIS.**

Leaves alternate or radical or uppermost whorled. Herbs. 3.

3. Perianth of sepals and petals. Carpels fleshy.

**3 KNOWLTONIA.**

Perianth simple.

4.

4. Carpels few, without tails.

**5 THALICTRUM.**

Carpels many tailed.

**4 ANEMONE.**

### 1. CLEMATIS L.

1. **brachiata** Thb. Common. Coast to Drakensberg.
2. **glaucescens** Fresen. Tugela district.
3. **grata** Wall. Inchanga.
4. **oweniae** Harv. Inanda. Zululand.
5. **incisodentata** A. Rich.

### 2. RANUNCULUS L.

1. **pinnatus** Poir. Common in moist places. Coast to Drakensberg. "uXaposi."



2. *baurii* Macowan. Drakensberg.

3. *cooperi* Oliv. Drakensberg.

4. *meyeri* Harv. Drakensberg.

3. **KNOWLTONIA** Salisb.

1. *brevistylis* Szysz. Zululand and Midlands.

2. *vesicatoria* Sims. Midlands.

4. **ANEMONE** L.

1. *caffra* Harv. Coast and Midlands.

2. *fanninii* Harv. Drakensberg and Midlands. Common.

5. **THALICTRUM** L.

*rhynocarpum* Dill & Rich. Midland and mountains. Around margins of bush, etc.

## FAMILY 49—MENISPERMACEAE.

Shrubs or half shrubs, slender, often climbing. Leaves alternate, nearly always exstipulate. Flowers small, unisexual, usually dioecious. Sepals 1—8. Petals 1—6 or 0. Stamens usually as many as petals and opposite to them. Carpels 1—many. Ovules solitary. Fruit of small drupes. 3 genera 6 species.

1. Female flower. Sepals 3—5, petals 3—5.

### 1 STEPHANIA.

Female flower. Sepals 1—2, petals 1—2.

2.

2. Female flowers. Sepals 1. Petals 1 (rarely 2—3).

### 3 CISSAMPELOS.

Female flower. Sepals 2. Petals 2.

### 2 ANTIZOMA.

### 1. STEPHANIA. Lour. "umTambane."

*hernandaefolia* Walp. Coast to Drakensberg. Often in ant bear holes.

### 2. ANTIZOMA Miers.

*angustifolia* Miers. Near Weenen, 2-3,000 ft.

### 3. CISSAMPELOS L. (Climbers.)

1. *pariera* L. Coast and Midlands.

2. *torulosa* E.M. Coast and Midlands.

3. *natalensis* Szysz. Coast and Midlands.

4. *burcheiliana* Miers. Inchanga, 2,000 ft.

## FAMILY 50—ANONACEAE.

Trees or shrubs, often climbing. Leaves entire, exstipulate. Flowers usually hermaphrodite. Sepals 3 (rarely 2), valvate. Petals 3—6 free or united at base. Stamens 6 or many, filaments thickened upwards. Carpels 3 or more, superior, free or united. Ovules inverted. Fruit usually a berry. Seeds with ruminant endosperm. 4 genera 5 species.

1. Carpels united in fruit. Outer petals fleshy, concave.

### 4 ANONA.

- Carpels free till maturity, shortly stalked. 2.
2. Petals imbricate in bud. Ovules many. 1 **UVARIA**.  
 Petals valvate in bud. Ovules 1—2. 3.
3. Petals thick, spreading. Stalks of inflorescence and flowers  
 usually thickened and hooked. 2 **ARTABOTRYS**.  
 Petals thin, not spreading. 3 **POPOWIA**.
1. **UVARIA** L. "Mazwenda."  
*caffra* E.M. Climber in bush. Coast and Midlands.
2. **ARTABOTRYS** R.Br.  
*monteiroae* Oliv. Climber in bush. Coastbelt. Rare.
3. **POPOWIA** Endl. "Dwaba." "Mazwenda mnyama."  
 1. *caffra* Hk.f. and Thoms. Climber in bush. Coast and  
 Midlands.  
 2. *buchanani* Engl. & Diels. Alexandra County.
4. **ANONA** L.  
*senegalensis* Pers. Shrub. Coastbelt and Zululand.

### FAMILY 51—MONIMIACEAE.

Trees or shrubs. Leaves simple, exstipulate. Flowers uni-  
 sexual. Perianth simple 3—6 lobed. Stamens 10 or more. Car-  
 pels 1 or more, separate, often sunk in the receptacle. Ovule 1.  
 Seeds with fleshy endosperm. 1 genus 1 species.

**XYMALOS**. Baill. "uVeti," "uVeto," "Totshe," "Totshwa,"  
 "uHlwehlwe," "Lemonwood."

*monospora* Baill. Tree, throwing dense shade. Dominant  
 or subdominant in much of the moister Midland  
 forests.

### FAMILY 52—LAURACEAE.

Trees, shrubs or parasitic herbs. Leaves simple, exstipulate.  
 Flowers regular. Perianth of 4—6 segments. Fertile stamens  
 4—14, perigynous. Ovary superior, rarely inferior, 1 celled. Ovule  
 1, pendulous, inverted. Style simple. Seed exendospermic. 3  
 genera 8 species.

1. Twining parasitic herb, without chlorophyll.

3 **CASSYTHA**.

Trees or shrubs. 2.

2. Anthers 2 celled. Fruit enclosed in receptacle.

1 **CRYPTOCARYA**.

Anthers 4 celled. Cells superposed. Fruit baccate.

2 **OCOTEA**.

1. **CRYPTOCARYA** R.Br. "xoboti," "umXaleba," "umTung-  
 wane," "umCutunga."

1. *latifolia* Sond. Coast and Midlands. Large tree.  
 "umCutungwa."

2. *woodii* Eng. (*acuminata* Schinz.) Coast and Midlands.
3. *myrtifolia* Stapf. Inanda. "umCqabi."
4. *sutherlandi* Stapf. Coast and Midlands.
5. *wyliei* Stapf. Ngoye, Zululand.
2. **OCOTEA** Aubl. "inSingane." "umNukane."
  - bullata* E. M. Tree 60—80 ft. high. Midland and mountain forests.
3. **CASSYTHA** L.
  1. *filiformis* L. Coastbelt.
  2. *ciliolata* Nees.

### FAMILY 53—PAPAVERACEAE.

Herbs. Leaves usually divided. Flowers hermaphrodite. Sepals 2, rarely 3. Petals 4, rarely 6, free. Stamens 2—many. Ovary superior, 1 celled or incompletely 2 or more celled. Ovules parietal, curved or inverted. Fruit a capsule or nut. Seed endospermic. 4 genera 5 species.

1. Petals (at least 1) spurred. Stamens in 2 bundles, 3 and 3. 2.  
     Petals not spurred. Stamens 4—20. 3.
2. Ovules 3 or more. Fruits 3 or more seeded, pod like.

#### 4 CORYDALIS.

Ovules 1—2. Fruit 1—2 seeded, subglobose, indehiscent.

#### 3 FUMARIA.

3. Juice whitish, milky. Ovary incompletely septate.

#### 1 PAPAVER.

Juice yellow. Petals yellow or white. Prickly plant.

#### 2 ARGEMONE.

1. **PAPAVER** L.
  - aculeatum* Thb. Midlands and Drakensberg.
2. **ARGEMONE** L.
  - mexicana* L. Common weed. Introduced.
3. **FUMARIA** L.
  - officinalis* L. In open ground. Coast and Midlands.
4. **CORYDALIS** DC.
  1. *pruinosa* E.M. Midlands, in bush.
  2. *cracca* Schltr. Drakensberg, 8,000 ft.

### FAMILY 54—CRUCIFERAE.

Herbs or shrubs. Leaves alternate, or lower opposite, exstipulate. Flowers hermaphrodite. Sepals 4, rarely 0; stamens 6 (4 longer, 2 shorter). Ovary superior 1—2 celled or transversely septate. Ovules parietal, curved, style 1, stigmas 1—2. Fruit dry, usually 2 valved. Endosperm scanty or wanting. Embryo curved. 9 genera 16 species.

1. Fruit (silicula) not 3 times as long as broad. 2.
- Fruit (siliqua) 3 or more times as long as broad. 4.
2. Fruit indehiscent at maturity, seeds solitary.

**5 SENEBIERA.**

- Fruit dehiscent at maturity. 3.
3. Seeds solitary in each cell. Flowers minute.

**6 LEPIDIUM.****7 CAPSELLA.**

4. Fruit with flat valves. 5.
- Fruit with round backed, convex valves. 7.
5. Stigma equally developed all round. Cotyledons twice folded.

**9 HELIOPHILA.**

- Stigma more developed above the placentas than between them. Cotyledons not twice folded. 6.
6. Fruit valves without distinct veins, opening elastically.

**3 CARDAMINE.**

- Fruit valves with distinct veins, not elastic. 2 ARABIS.
7. Fruit transversely divided into two or more fertile cells.

**8 BRASSICA.**

- Fruit not transversely septate, but sometimes produced into a seedless beak. 8.
8. Radicle of embryo accumbent (0—). Water or marsh plants.

**1 NASTURTIIUM.**

Radicle of embryo incumbent (0 11). Weeds.

**4 SISYMBRIUM.****1. NASTURTIIUM R.Br.**

1. *officinale* R.Br. In pools along streams.
2. *fluviatile* E.M. In pools along streams.

**2. ARABIS L.**

*perfoliata* Lam. Banks of Mooi River, 4,000 ft.

**3. CARDAMINE L.**

*africana* L. Ravines. Inanda, 1,800 ft.

**4. SISYMBRIUM L.**

*capense* Thb. Near Verulam, 800 ft.

**5. SENEBIERA DC.**

*pinnatifida* DC. Introduced weed.

**6. LEPIDIUM L. "uMathoyisa."**

*capense* Thb. Very common weed. All over.

**7. CAPSELLA Vent.**

*bursa-pastoris* Moench. Weed, not very common.

**8. BRASSICA L.**

*strigosa* DC. Coastbelt.

**9. HELIOPHILA L.**

1. *woodii* Conrath. Coast and Midlands.
2. *subulata* Burch. Drakensberg.
3. *stricta* Sond. Giants Castle, 10,000 ft.



4. **rigidiuscula** Sond. Coast and Midlands.
5. **scandens** Harv. Sand dunes, near the sea.
6. **suavissima** Burch. Mont Aux Sources, 8,800 ft.
7. **virgata** Burch. Coast to Drakensberg. Common.

## FAMILY 55—CAPPARIDACEAE.

Trees, shrubs or herbs, often climbing. Leaves alternate. Flowers usually regular. Petals wanting or free, usually 4. Ovary superior, usually stalked. Ovules 4 or more, curved. Fruit a capsule or berry. Seeds exendospermic. Embryo curved. 4 genera 17 species.

1. Annual herbs. Fruit a dry, dehiscent, pod-like capsule.

### 1 CLEOME.

Trees, shrubs or climbers. Fruit succulent. 2.

2. Calyx tube distinct, persistent. 2 MAERUA.

Calyx tube indistinct, or wanting. 3.

3. Receptacle produced behind into a tube or strap shaped appendage. Stamens usually 6 on an androphore.

### 3 CADABA.

Receptacle appendage wanting or scale-like. Androphore short or wanting. Stamens 8 or more. 4 CAPPARIS.

#### 1. CLEOME L. (Annual herbs.)

1. **monophylla** L. Midlands and Drakensberg.
2. **rubella** Burch. Midlands.

#### 2. MAERUA Forsk (including *Nieuburgia* DC.) (Mostly shrubs.)

1. **angolensis** DC.
2. **rosmarinoides** (Sond). Gilg and Benedict. Coastbelt scrub.
3. **nervosa** (Hochst) Gilg and Benedict. Coastbelt scrub. "Matandana."
4. **triphylla** Dur. & Schinz. (*Nieuburgia triphylla* Wendl.) Coast and Midlands.
5. **woodii** Dur. and Schinz. Inanda. 1,800 ft. Half herbaceous.
6. **racemulosa** Gilg. and Benedict. (*Boscia caffra* Sond). Coast and Midlands. "inPunzizo."

#### 3. CADABA Forsk.

**natalensis** Sond. Coastbelt shrub or climber.

#### 4. CAPPARIS L. "inQaningi." "inTshilo."

1. **tomentosa** Lam. (*corymbifera* E.M.) Coast and Midlands. Common.
2. **woodii** Gilg and Benedict. Coast. Sand dune bush.
3. **calvescens** Gilg and Benedict. Tugela valley.
4. **zeyheri** Turcz. Coast and Midlands.
5. **solanoideis** Gilg and Benedict. Little Noodsberg, 2,000 ft.

6. **rudatisii** Gilg and Benedict. Alexandra County, 2,000 ft., and N.E. Zululand.
7. **gueinzii** Sond. Coast and Midlands. "uMabusana."
8. **albitrunca** Burch. Weenen County. Dry bush. "isiNami."

### FAMILY 56—RESEDACEAE.

Herbs or undershrubs. Leaves alternate, stipulate. Flowers in spikes or racemes, irregular. Sepals 4—8. Petals 2—8, rarely 0, free. Stamens 3—40, free or united at base. Carpels 2—6, superior, free or united. Ovules inverted. Seeds exendospermic. Embryo curved. 1 genus 1 species.

**OLIGOMERIS** Cambess.

**dregeana** Presl. Coast and Drakensberg. Van Reenen.

### FAMILY 57—DROSERACEAE.

Herbs (insectivorous). Leaves with glandular tentacles. Flowers regular, hermaphrodite. Calyx 4—8, lobed. Petals 4—8, usually 5, free. Stamens 4—20. Ovary superior 1 celled. Ovules numerous, inverted. Styles or style branches 2—5. Fruit a capsule. Seeds endospermic. 1 genus 3 species.

**DROSER** L.

1. **burkeana** Planch. Common all over. Usually in moist places, but not always.
2. **ramentacea** Burch. Midlands and Drakensberg.
3. **natalensis** Diels. Jolivet, 3,000 ft.

### FAMILY 58—PODOSTEMONACEAE.

Aquatic herbs attached to rocks in streams. Flowers hermaphrodite. Perianth of 2—3 scales or larger, 3 parted. Stamens 1—4. Ovary superior, 1—3 celled, with central placenta. Ovules numerous, inverted. Fruit capsular. Seeds endospermic. 2 genera 2 species.

Flowers regular, 3 parted.

**1 TRISTICHA.**

Flowers irregular. Perianth of 2 scales.

**2 SPHAEROTHYLAX.**

1. **TRISTICHA** Thouars.

**hypnoides** Spreng. Midland rivers. Fairly common.

2. **SPHAEROTHYLAX** Bischoff.

**algiformis** Bisch. Apparently rare. (Doubtful.)

(The **Tristichaceae** have recently been separated by Willis as a distinct family.)

### FAMILY 59—HYDROSTACHYACEAE.

Aquatic herbs attached to rocks in streams. Leaves with a sheath and ligule. Flowers dioecious. Stamen 1 with separated

anther halves. Ovary 1 celled with 2 parietal placentas. Ovules numerous, inverted. Styles 2. Fruit capsular. Seeds exendospermic. 1 genus 1 species.

**HYDROSTACHYS** Thouars.

**natalensis** Wedd. Midland rivers. Fairly common.

## FAMILY 60—CRASSULACEAE.

Herbs or undershrubs, usually succulent. Leaves exstipulate. Flowers regular, hermaphrodite. Petals 3—20, free, or united below. Stamens as many, or twice as many as petals. Carpels as many as petals, free or united at base, usually with a scale-like appendage. Ovules numerous, rarely 1—2 in each carpel. Fruit follicular. Seeds with little or no endosperm. 3 genera 56 species.

1. Stamens as many as sepals or petals. **3 CRASSULA.**

Stamens twice as many as sepals or petals. **2.**

2. Sepals 4. Petals 4. **2 KALANCHOE.**

Sepals 5. Petals 5. **1 COTYLEDON.**

### 1. COTYLEDON L.

**orbiculata** L. Midlands. Common.

### 2. KALANCHOE Adans.

1. **crenata** Hamet. Midlands. Common in shade.

2. **hirta** Harv. Midlands.

3. **longiflora** Schltr. Near Dumbeni. Weenen County.  
3-4,000 ft.

4. **paniculata** Harv. Ifafa, 150 ft. alt.

5. **rotundifolia** Harv. Common, usually in light shade.

6. **thyrsiflora** Harv. Midlands. Common.

### 3. CRASSULA L. "inTelegi."

1. **brachypetala** E. M. Common, all over Natal.

2. **brevistyla** Baker. Umzinyati Falls, 300 ft.

3. **centauroides** L. Common in shade. Coast and Midlands

4. **cooperi** Regel. Drakensberg.

5. **cordata** Ait. Umlaas Native Location.

6. **corymbulosa** Link. Umzinyati Falls, 300 ft.

7. **crenatifolia** Baker.f. Van Reenen.

8. **crenulata** L.f. Inanda, 2,000 ft.

9. **curta** N.E.Br. Drakensberg and Mahwaqa Mt.

10. **drakensbergensis** Schön. Van Reenen.

11. **dregeana** Harv.

12. **ericoides** Harv. Common.

13. **expansa** Ait. Coastbelt.

14. **falcata** Wendl. Midlands.

15. **heterotricha** Schinz. Midlands.

16. **inanis** Thunb. Mountains. Wet places.

17. **inandensis** Schön. Inanda.

18. *involucrata* Schön. Insiwa Mountains.
19. *lactea* Ait. Inanda.
20. *latispathulata* Schön. Izingolweni, 2-3,000 ft.
21. *meyeri* Harv.
22. *multicava* Lem. Inanda.
23. *muscosa* L. Midlands and Drakensberg. In woods.
24. *natalensis* Schön. Illovo.
25. *orbicularis* L.
26. *pallida* Baker. Midlands. Common.
27. *parvula* Endl. Groenberg, 2,000 ft., and Drakensberg.
28. *perforata* L.f. Inanda.
29. *portulacea* Lam.
30. *recurva* N.E.Br. Zululand.
31. *rosularis* Harv. Midlands and Drakensberg. Common.
32. *rubicunda* E.M. Common all over. "isiKelehlane."
33. *sarcocaulis* E. & Z. Midlands and Drakensberg.
34. *sarmentosa* Harv. Inanda.
35. *sediflora* Endl. Boston, 3,000—4,000 ft.
36. *sessilifolia* Baker.
37. *stachyera* E. & Z. Common all over.
38. *subulata* L. Van Reenen, Drakensberg.
39. *tenuicaulis* Schön. Van Reenen.
40. *tenuifolia* Schön. Midlands. Common.
41. *vaginata* E. & Z. Common all over.
42. *woodii* Schön. Midlands.
43. *rubescens* Schön and Bak.f. Drakensberg, 9,500 ft.
44. *campestris* (E. & Z.) Harv. Midlands and Drakensberg.
45. *transvaaliensis* O.K. Coast to Drakensberg.
46. *inchangensis* Engler. Inchanga, 2-3,000 ft.
47. *scheppingiana* Diels. Coldstream, 5-6,000 ft.
48. *wylei* Schön. Zululand.
49. *harveyi* Britt. and Bak.f. Drakensberg.

### FAMILY 61—SAXIFRAGACEAE.

Herbs, shrubs or trees. Petals 4—5, free or united below stamens 4—10. Ovary 1—7 celled, superior or inferior. Ovules numerous, inverted. Seeds endospermic. 1 genus 1 species.

Flowers polygamous. Petals 5, stamens 5, ovary 2 celled, many ovuled. Capsule inferior or half inferior.

#### CHORISTYLIS.

**CHORISTYLIS** Harv. "uBubu."

*rhamnoides* Harv. Midlands. Small scandent shrub.

### FAMILY 62—PITTOSPORACEAE.

Trees or shrubs. Leaves alternate, undivided, exstipulate. Flowers regular, hermaphrodite. Sepals 5, free or nearly so.



Petals 5, free or united below. Stamens 5 hypogynous. Disc none. Ovary superior 1 celled or incompletely 2—5 celled. Style simple. Stigma entire or lobed. Ovules numerous inverted, ascending or horizontal. Fruit a loculicidal capsule. Seed endospermic. 1 genus 1 species.

**PITTOSPORUM** Banks. "umFusamvu." "umKwenkwe."

**viridiflorum** Sims. Common tree in all bush. Coast to Drakensberg.

### FAMILY 63—CUNONIACEAE.

Trees or shrubs. Leaves opposite or whorled, stipulate. Flowers hermaphrodite. Sepals 4—5, free or united at base. Petals 4—5. Stamens 8—10, inserted beneath the disc. Ovary superior 2—3 celled. Ovules 2 or more to each cell. Styles 2—3 free. Fruit capsular. Seeds endospermic. 1 genus 1 species.

**CUNONIA** L. "maPetu." "Seluma." "umLulama." "um-Kwashube." "umHlalane."

**capensis** L. Coast to Midland Bush. Nowhere common in Natal.

### FAMILY 64—MYROTHAMNACEAE.

Shrubs. Leaves opposite, undivided, stipulate. Flowers dioecious without perianth. Stamens 3—8. Ovary 3-4 celled. Ovules numerous, inverted. Styles 3—4 free. Fruit capsular or separating into 2—4 nutlets. Seeds endospermic. 1 genus 1 species.

**MYROTHAMNUS** Welw.

**flabellifolius** Welw. Locally dominant over rocks in upper districts. Near Vryheid.

### FAMILY 65—BRUNIACEAE.

Undershrubs or shrubs. Leaves alternate, exstipulate, small. Flowers usually in heads, hermaphrodite, 4—5 merous. Petals free or united below. Stamens 4—5. Ovary inferior or half inferior, 1—3 celled. Ovules 1—4 in each cell, pendulous, inverted. Styles 1—3. Fruit a capsule or nut. Seeds endospermic. 1 genus 1 species.

**BERARDIA** Sond.

**trigyna** Schltr. Wet places. Murchison.

### FAMILY 66—HAMAMELIDACEAE.

Trees or shrubs. Leaves undivided, stipulate. Flowers unisexual or hermaphrodite, 4—5 merous. Petals narrow, sometimes wanting in female flowers. Stamens 4—5. Ovary 2 celled.

Ovules 1 in each cell, pendulous inverted. Styles 2. Fruit capsular. Seeds with thin endosperm. 1 genus 2 species.

**TRICHOCLADUS** Pers. "isiTambo."

1. **crinitus** Pers. Coast and Midland bush. Common.
2. **grandiflorus** Oliv. Ngomi Forest. "inGabavu."

**FAMILY 67—ROSACEAE.**

Herbs, shrubs or trees. Leaves alternate, stipulate. Receptacle usually concave. Flowers hermaphrodite or unisexual. Perianth simple or of calyx and corolla. Stamens usually numerous, rarely few. Carpels 1 or many, free or inferior, and more or less united. Ovules inverted. 8 genera 22 species.

1. Carpel 1 with 2 ovules, sometimes 2 celled. 2.
- Carpels 2 or more, or if 1, then 1 ovuled. Flowers regular. 3.
2. Style terminal or nearly so. Petals sepaloid or 0. Tree.

**7 PYGEUM.**

Style basal. Ovules erect. Low shrub. **8 PARINARIUM.**

3. Receptacle tightly enclosing carpels, especially in fruit. 4.
- Receptacle cup or saucer shaped not tightly enclosing carpels. 7.
4. Flowers dioecious, inconspicuous. Stamens many.

**6 CLIFFORTIA.**

Flowers hermaphrodite. 5.

5. Petals absent. Herbs. **3 ALCHEMILLA.**
- Petals present. 6.

6. Herbs. **5 AGRIMONIA.**

Shrubs or trees. **4 LEUCOSIDEA.**

7. Herbs. **2 GEUM.**

Prickly scrambling shrubs. "Brambles." **1 RUBUS.**

**1. RUBUS** L. "Tshalo."

1. **pinnatus** Willd. Very common all over. Dominant after fire in bush.
2. **ludwigii** E. & Z. Drakensberg.
3. **rigidus** Smith. Drakensberg. "Jingijolo."
4. **rosaefolius** L. Eshowe. Introduced?

**2. GEUM** L.

**capense** Thb. Wet places. Midlands and Drakensberg.

**3. ALCHEMILLA** L.

1. **capensis** Thb. Common. Midlands.
2. **elongata** E. & Z. Common. Midlands.
3. **madagascarensis** O. Hoffm.
4. **woodii** O. Kuntze. Van Reenen.
5. **natalensis** Engl. Weenen County, 4,000 ft.

**4. LEUCOSIDEA** E. & Z. "inClabibi." "inTshitshi."

**sericea** E. & Z. Dominant in mountain scrub. Important

pioneer in forest succession in Drakensberg. (Oudehout.)

5. **AGRIMONIA** L. "uMakhuthula."

*eupatoria* L. var *capensis* Harv. Common in Midlands.

6. **CLIFFORTIA** L.

1. *linearifolia* E. & Z. Common or often dominant around margins of bush, Midlands and Drakensberg.

2. *octandra* Cham.

3. *serpyllifolia* Ch. and Sch. In marshy ground, Inanda and Zululand.

4. *serrulata* Diels. Zululand, 5,000 ft.

5. *strobilifera* Murr. Midlands. Common. "umWele."

6. *natalensis* J. M. Wood. Midlands.

7. *prostrata* Schltr. Drakensberg.

8. *n. sp.* Tabanhllope. (Evans.)

7. **PYGEUM** Gaertn. "Dumizulu." "Xalote." "umKokoke."

*africanum* Hk.f. Tree. Common in Midland forest, near water.

8. **PARINARIUM** Juss.

*capense* Harv. var *latifolia* Oliv. N.E. Zululand.

## FAMILY 68—CONNARACEAE.

Shrubs, trees or climbers. Leaves alternate, compound. Flowers regular. Sepals 5, free or united. Petals 5, free, rarely slightly united. Stamens 5—10, free or united at base. Carpels 1—5, free, superior. Ovules 2 to each carpel. Fruit dry, usually dehiscent lengthwise, rarely indehiscent. 1 genus 1 species. Carpels 5. Capsules 1—2. Climbing shrub with pinnate leaves.

### CNESTIS.

**CNESTIS** Juss. "Hlozi."

*natalensis* Pl. & Sond. Coast and Midlands. Common.

## FAMILY 69.—LEGUMINOSAE.

Herbs, shrubs or trees. Leaves usually compound and stipulate. Flowers regular or irregular. Sepals usually 5. Petals usually 5 and free. Sometimes united, rarely 0. Stamens 5—10, or numerous. Ovary superior, 1 celled. Ovules inserted at the ventral suture. Style simple. Stigma entire. Fruit 1—2 or transversely several celled, opening along ventral suture or separating transversely or indehiscent. Seeds usually exendospermic. 58 genera 280 species.

1. Petals valvate or united. Flowers regular. Leaves twice pinnate. (*Mimosoideae*.) 2.

Petals imbricate in bud or rarely absent. Flowers irregular, or rarely nearly regular. 6.

2. Stamens as many or twice as many as petals. 3.  
Stamens indefinite, numerous. 5.
3. Upper flowers hermaphrodite (yellow). Lower neuter (white or red). 55 **DICHROSTACHYS**. 4.  
Flowers all alike.
4. Flowers sessile. 53 **ENTADA**.  
Flowers stalked. 54 **ELEPHANTORHIZA**.
5. Filaments free or inner united. 56 **ACACIA**.  
Filaments united in a tube. 57 **ALBIZZIA**.
6. Petals absent, or if present the posterior one (the one next the placenta), inside in the bud (*Caesalpinioideae*). 7.  
Petals 5, the posterior outside in the bud. (*Papilionatae*) 10.
7. Leaves simple, 2 lobed. 51 **BAUHINIA**.  
Leaves pinnate or bipinnate. 8.
8. Leaves bipinnate. 49 **HOFFMANSEGGIA**.  
Leaves pinnate. 9.
9. Stamens 10. Anthers splitting. 52 **SCHOTIA**.  
Stamens less than 10 perfect. Anthers opening by pores. 50 **CASSIA**.
10. Filaments free or nearly so. (*Podalyrieae* and *Sophoreae*). 11.  
Filaments united or all united except one. 14.
11. Leaves simple or unifoliolate. 12.  
Leaves pinnate or trifoliolate. 13.
12. Flowers pink or purple. Calyx subequally 4-5 cleft. 1 **PODALYRIA**.  
Flowers yellow or white. Calyx deeply slit in one or two places. 46 **BAPHIA**.
13. Fruit flat, compressed, membranous. 47 **CALPURNIA**.  
Fruit terete, moniliform, constricted between the seeds. 48 **SOPHORA**.
14. Connective of stamens produced into a small point, gland or tuft of hairs. Keel with a spur or prominence on each side near the base. One stamen free. Hairs fixed by a medial point (strigose). Flowers red or purple, rarely white. 15 **INDIGOFERA**.  
Plants differing from *Indigofera*. 15.
15. Ovary sessile, 1 ovuled, not ripening underground. 1 stamen free. Leaves never with stipels, usually with resinous glandular dots. Stipules free or adnate to petiole. Flowers blue, purple or white. 14 **PSORALEA**.  
Ovary 2 or more ovuled or otherwise differing from *Psoralea*. 16.
16. Filaments all or the alternate ones broadened at the apex. 17.  
Filaments not broadened at the apex. 19.



17. Keel beaked. Lower two leaflets like stipules. **13 LOTUS.**  
 Keel blunt or slightly pointed. 18.
18. Herbs. Petals adnate to the staminal tube. **12 TRIFOLIUM.**  
 Shrubs. Stem woody. **17 MUNDULEA.**
19. Herbs with equally pinnate leaves, the common petiole produced into a bristle or tendril (introduced). 20.  
 Petiole not produced. 21.
20. Stamens 9. **32 ABRUS.**  
 Stamens 10. **31 VICIA.**
21. Fruit ripening underground (cultivated plants). 22.  
 Fruit not ripening underground. 23.
22. Filaments all united (monkey nut). **25 ARACHIS.**  
 One stamen free. **40 VOANDZEIA.**
23. Leaves simple, unifoliolate or wanting. 24.  
 Leaves compound. 34.
24. Anthers of 2 kinds, 5 basifixed, 5 versatile (or 5 rudimentary). 25.  
 Anthers uniform. 29.
25. Leaves stipulate. Style bearded on inside near apex. **9 CROTALARIA..**  
 Leaves exstipulate. Style not bearded. 26.
26. Calyx lobes distinctly unequal. 2 upper broadest. 27.  
 Calyx lobes more or less equal. 28.
27. Leaves scattered, flat. **2 RAFNIA.**  
 Leaves fascicled, linear. **5 ASPALATHUS.**
28. Leaves sessile, fascicled. **5 ASPALATHUS.**  
 Leaves more or less stalked, not fascicled. **4 LEBECKIA.**
29. Uppermost stamen united with the others in the middle, at least when young, free at the base. 30.  
 Uppermost stamen free throughout. 31.
30. Fruit jointed. Upper calyx lobes more or less united. **28 DESMODIUM.**  
 Leaflets usually with stipels. **16 TEPHROSIA.**  
 Fruit not jointed. Stigma usually hairy. Leaflets usually with parallel side nerves and no stipels. **30 ALYSICARPUS.**
31. Ovules 3 or more. Fruit jointed. 32.  
 Ovules 2. Fruit not jointed. **44 FLEMINGIA.**
32. Fruit turgid. 33.  
 Fruit compressed. **43 ERIOSEMA.**
33. Upper calyx lobes separate or shortly united. Seeds oblong without an outgrowth at hilum. Seedcord excentral. **42 RHYNCHOSIA.**  
 Ovary usually very hairy. **42 RHYNCHOSIA.**  
 Upper calyx lobes more or less united. Seeds orbicular or reniform with an outgrowth at the hilum. Seed cord central. Ovary glabrous or pubescent.
34. Anthers of 2 kinds, 5 basifixed, 5 versatile (or 5 rudimentary). 35.

- Anthers all uniform. 46.  
 35. Leaves digitate. 36.  
     Leaves pinnate. 44.  
 36. All the filaments united in a tube. 37.  
     The filaments united in a sheath which is split down. 38.  
 37. Leaflets 2 or 4, rarely 3. Fruit jointed, bristly indehiscent. 27 ZORNIA.  
     Leaflets 3. Fruit not jointed, dehiscing. 10 ARGYROLOBIUM.  
 38. Style bearded on inside towards apex. 9 CROTALARIA.  
     Style not bearded. 39.  
 39. Calyx 2 lipped, upper 2, lower 3 toothed. 40.  
     Calyx segments equal or 4 upper united in pairs. 42.  
 40. Keel longer than standard. Leaves exstipulate. 8 DICHILUS.  
     Keel shorter than standard. Leaves stipulate. 41.  
 41. Fruit glandular, hairy or viscid. Calyx usually shortly 2 lipped  
     Bracteoles leaflike. 7 MELOLOBIUM.  
     Fruit hairy, but not glandular. Calyx deeply 2 lipped.  
     Bracteoles usually small. 10 ARGYROLOBIUM.  
 42. Fruit ovate, 1—3 seeded. Shrubs. 6 BUCHENROEDERA.  
     Fruit linear, lanceolate or oblong. 43  
 43. Upper calyx segments united in pairs. Fruit flat. Leaves  
     usually with 1—2 stipules. 3 LOTONONIS.  
     Calyx oblique, 5 toothed. Fruit usually linear. Leaves ex-  
     stipulate. 4 LEBECKIA.  
 44. Leaves equally pinnate. 19 SESBANIA.  
     Leaves imparipinnate, numerous. 45.  
 45. Leaflets with stipels. Corolla red. 35 TERAMNUS.  
     Leaflets without stipels. Corolla yellow. 26 STYLOSANTHES.  
 46. Leaves abruptly pinnate. 47.  
     Leaves imparipinnate or digitate. 50.  
 47. Fruit jointed. 48.  
     Fruit not jointed, dehiscing by 2 valves. 49.  
 48. Fruit enclosed in an enlarged calyx. 24 SMITHIA.  
     Fruit much exceeding calyx. 23 AESCHYNOMENE.  
 49. Fruit transversely septate. 19 SESBANIA.  
     Fruit longitudinally 2 celled (more or less). 22 ASTRAGALUS.  
 50. Leaflets 3. 51.  
     Leaflets more than 3. 71.  
 51. Leaflets without stipels. 52.  
     Leaflets with stipels. 57.  
 52. Fruit spirally twisted. 11 MEDICAGO.  
     Fruit not spirally twisted. 53.

53. Petals (at least the lower) adnate to staminal tube. **12 TRIFOLIUM.**  
 Petals free from staminal tube. 54.
54. Ovules many. **16 TEPHROSIA.**  
 Ovules 2. 55.
55. Leaves digitate. Fruit turgid. **44 FLEMINGIA.**  
 Leaves pinnately trifoliolate. Fruit compressed. 56.
56. See 33. **Eriosema** or **Rhynchosia.**
57. Stem woody throughout. 58  
 Stem herbaceous or woody at base only. 59.
- 58 Fruit jointed. Flowers not very large. **28 DESMODIUM.**  
 Fruit not jointed. Flowers large. Wings much smaller than  
 the standard, or wanting. **36 ERYTHRINA.**
59. Leaves digitate. Fruit turgid. Ovules 2. **44 FLEMINGIA.**  
 Leaves pinnately trifoliolate. 60.
60. Fruit jointed, separating transversely. **28 DESMODIUM.**  
 Fruit not jointed, not separating transversely. 61.
61. Uppermost stamen not free, except sometimes at the base. 62.  
 Uppermost stamen free. 63.
62. Calyx bilabiate. Upper lip large 2 lobed, lower small. **37 CANAVALIA.**  
 Calyx 4—5 toothed. Two upper teeth connate. **34 GLYCINE.**
63. Style hairy above. 64.  
 Style glabrous or hairy only at base. (Sometimes stigma  
 hairy). 66.
64. Calyx sub-equally 4—5 toothed. Style with hooked point. **39 VIGNA.**  
 Calyx bilabiate, climbers. 65.
65. Keel spirally twisted. **38 PHASEOLUS.**  
 Keel curved inwards, but not spirally twisted. **41 DOLICHOS.**
66. Ovules 1—2, usually 2. 67.  
 Ovules 3 or more. 69.
67. Bracteoles present. **34 GLYCINE.**  
 Bracteoles absent. 68.
68. See 33. **Eriosema** or **Rhynchosia.**
69. Calyx entire or obscurely toothed, gibbous at base. **33 DUMASIA.**  
 Calyx distinctly 5 toothed or 5 cleft. 70.
70. Wings free from keel. Flowers small, red. Leaflets large.  
 Plant hairy. **29 PSEUDARTHRIA.**  
 Wings adhering to keel. **34 GLYCINE.**

71. Climbers in bush. 72.  
Trees, shrubs or herbs, erect. 73.
72. Stem herbaceous or woody at base only. 34 **GLYCINE**.  
Stem woody throughout. 45 **DALBERGIA**.
73. Fruit jointed transversely (rarely reduced to a single 1-seeded joint). 74.  
Fruit not jointed. 75.
74. Fruit enclosed by enlarged calyx. 24 **SMITHIA**.  
Fruit much exceeding calyx. 23 **AESCHYNOMENE**.
75. Tree. Fruit large, woody. 18 **MILLETIA**.  
Undershrubs. 76.
76. Fruit more or less longitudinally septate. 22 **ASTRAGALUS**.  
Fruit not longitudinally septate. 77.
77. Uppermost stamen united with others at middle, at least when young. Fruit coriaceous. 16 **TEPHROSIA**.  
Uppermost stamen free throughout. Fruit membranous. 78.
78. Standard shorter than the acute keel. 20 **SUTHERLANDIA**.  
Standard longer than the blunt keel. 21 **LESSERTIA**.
1. **PODALYRIA** Lam.  
*velutina* Burch. Midlands.
2. **RAFNIA** Thb.  
*sp.* (Wood 3008). Inyangwine, 500 ft.
3. **LOTONONIS** DC. (Mostly in grassveld.)  
1. *adpressa* N.E.Br. Stony hill, Charlestown, 5-6,000 ft.  
2. *calycina* Bth. Midlands and Drakensberg.  
3. *carinata* Bth. Midlands and Drakensberg.  
4. *corymbosa* Bth. Coast to Drakensberg. Common.  
"umHlambaluka."  
5. *cytisoides* Bth. Coastbelt.  
6. *dichiloides* Sond. Coastbelt. Common. Often ruderal.  
7. *eriantha* Bth. Midlands and Drakensberg.  
8. *foliosa* Bolus. Drakensberg foothills, Zululand.  
9. *grandifolia* Bolus. Van Reenen.  
10. *haygarthi* N.E.B. Zululand.  
11. *lanceolata* Bth. Midlands, Drakensberg and Zululand.  
12. *laxa* E. and Z. Hoffenthal, 4,000 ft., and Drakensberg.  
13. *malacophylla* Guerke.  
14. *prostrata* Bth. Vryheid.  
15. *schlechteri* Schinz. Zuurberg, 4,000 ft.  
16. *sessilifolia* Harv.  
17. *tenella* E. and Z. var *glabra*. Van Reenen.  
18. *woodii* Bolus. Mahwaqa, 6-7,000 ft.  
19. *trisegmentata* Phillips. Drakensberg.



20. *wyliei* Wood. Zululand, 3,000 ft., and Drakensberg.

21. *galpini* Dummer. Drakensberg.

4. **LEBECKIA** Thb.

1. *macrantha* Harv. and Sond. Zululand.

2. *mucronata* Umbumbulu, 1,500 ft.

5. **ASPALATHUS** L.

1. *canescens* L. Midlands.

2. *eriophylla* Walp.

3. *gerrardi* Bolus. Coastbelt.

4. *laricifolia* Berg. Midlands. Common.

5. *spinosa* L. Coast and Midlands. Very common.

6. **BUCHENROEDERA** E. & Z.

1. *biflora* Bolus. Zululand, 1,500 ft.

2. *lotononoides* Scott Elliott. Van Reenen.

3. *natalense* Baker.

4. *sparsiflora* Wood & Evans. Drakensberg, 8-9,000 ft.

5. *glabrescens* Dummer.

6. *viminea* Presl. Midlands and Drakensberg. Common.

7. *glabrifolia* N.E. Br. Drakensberg, Mont Aux Sources, 8,850 ft.

7. **MELOLOBIUM** E. & Z.

1. *alpinum* E. & Z. Midlands. Ladysmith.

2. *cernuum* E. & Z. Midlands. Charlestown.

3. *decumbens* Bth. Drakensberg.

4. *microphyllum* E. & Z. var *decumbens*. Bushman's River Valley, 6-8,000 ft.

5. *obcordatum* Harv. Upper Tugela, 4,000 ft.

6. *mixtum* Dummer. Coldstream.

8. **DICHILUS** DC.

1. *lebeckioides* DC. Midlands and Zululand.

2. *strictus* E.M. Drakensberg. Foothills.

9. **CROTALARIA** L. Mostly in grassveld.

1. *burkeana* Bth. Midlands.

2. *capensis* Jacq. Coast and Midlands: "uMayehlezana."

3. *distans* Bth. Thornveld.

4. *dura* Wood & Evans. Midlands. Inanda.

5. *grantiana* Harv. Inanda.

6. *globifera* E.M. Coast and Midlands. Common.

7. *lanceolata* E.M. Coast and Midlands. Common.

8. *macrocarpa* E.M. Umkomaas.

9. *natalitia* Meisn. Coast and Midlands. Common.

10. *saltiana* Ands. (*striata* D.C.) Coast.

9a. **CYTISUS** L.

*natalensis* Bolus. Bushman's River Pass, 6,300 ft.

10. **ARGYROLOBIUM** E. & Z. Mostly in grassveld.

1. **andrewsianum** Steud. Coast and Midlands. Common.
- andrewsianum** var **racemosum** Harv. Inanda. Common.
- andrewsianum** var **pauciflorum** Harv. Mahwahqa, 6-7,000 ft.
2. **ascendens** Walp. Coast and Midlands.
3. **longifolium** Walp. Coast and Midlands.
4. **longipes** N.E.B. Midlands.
5. **marginatum** Bolus. Coast to Drakensberg.
6. **molle** E. and Z.
7. **nanum** Schltr. Van Reenen.
8. **nigrescens** Dummer. Van Reenen.
9. **pauciflorum** C. and Z. Camperdown.
10. **reflexum** N.E.B. Zululand, 1-2,000 ft.
11. **rupestre** Walp. Common. Coast and Midlands.
12. **sandersoni** Harv. Midlands.
13. **speciosum** E. & Z. Midlands.
14. **stipulaceum** E. & Z. Midlands and upper districts.
15. **sutherlandi** Harv. Midlands. Common.
16. **tuberosum** E. & Z. Drakensberg.
17. **woodii** Dummer. Liddlesdale. Midlands.
18. **uniflorum** Harv. Coast and Midlands. Common.
19. **natalense** Dummer. Inanda.
20. **variopile** N.E.B. Drakensberg.
21. **amplexicaule** Dummer. Inanda to Drakensberg.
22. **sankeyi** Dummer. Drakensberg.
23. **pilosum** Harv. Drakensberg, 8,000 ft.
11. **MEDICAGO** L.
  1. **denticulata** Willd. Midlands.
  2. **laciniata** Mill. Midlands and Drakensberg.
12. **TRIFOLIUM** L.
  1. **africanum** Ser. Coast to Drakensberg. Common.
  2. **burchellianum** Ser. Midlands.
13. **LOTUS** E.M.
  - discolor** E.M. Coastbelt. Common.
14. **PSORALEA** L.
  1. **caffra** E. & Z. Coast and Midlands.
  2. **pinnata** L. Midlands and mountains. "umHlonishwa."
  3. **polysticta** Bth. Midlands and mountains.
15. **INDIGOFERA** L. (Mostly in Grassveld.)
  1. **alternans** DC. Zululand.
  2. **argyraea** E. & Z. Zululand.
  3. **arrecta** Hochst. Coast and Midlands. "umPekambedu."
  4. **corniculata** E.M. Coast.
  5. **cryptantha** Bth.
  6. **cylindrica** DC. Near Durban.

7. *daleoides* Bth. Zululand.
8. *denudata* Thb. Zululand.
9. *dimidiata* Vogel. Midlands and Drakensberg.
10. *dregeana* E.M. Coastbelt.
11. *endecaphylla* Jacq. Coastbelt. Common.
12. *evansii* Schltr. Drakensberg.
13. *eriocarpa* E.M. Inanda.
14. *fastigiata* E.M. Common all over.
15. *filipes* Bth. Zululand.
16. *foliosa* E.M. Midlands.
17. *gerrardiana* Harv. Midlands.
18. *grata* E.M. Coast.
19. *hedyantha* E. & Z. Midlands and Drakensberg.
20. *heterotricha* DC. Zululand.
21. *hilaris* E. & Z. Coastbelt. Common.
22. *hirsuta* Harv. Midlands and Drakensberg.
23. *longipes* N.E.B. Midlands.
24. *micrantha* E.M. Coastbelt. "isiKhubabende."
25. *natalensis* Bolus. Zululand and Midlands.
26. *oxytropis* Bth.
27. *parviflora* Heyne. Weenen County.
28. *polycarpa* Bth. Near Durban.
29. *rhytidocarpa* Bth. Ladysmith.
30. *rostrata* Bolus. Midlands.
31. *rufescens* E.M.
32. *sarmentosa* L.
33. *schlechteri* Baker. Insiswa, Drakensberg, 7,000 ft.
34. *setosa* N.E.Br. Umhloti.
35. *tenuissima* E.M.
36. *tetragonoloba* E.M. Coast. Umzinyati Falls.
37. *tristis* E.M. Coast and Midlands.
38. *velutina* E.M. Near Durban.
39. *vestita* Harv. Coastbelt.
40. *viminea* E.M. Inanda.
41. *woodii* Bolus. Coast and Midlands.
42. *alopecurus* Schltr. Alexandra County.
43. *zeyheri* Spreng. Drakensberg, Charlestown.
44. *cuneifolia* E. & Z. Cathkin Peak, Drakensberg, 10,000 ft.
16. **TEPHROSIA** Persoon. (Mostly in grassveld.)
  1. *aemula* Harv.
  2. *amoena* E.M. Coastbelt and Zululand.
  3. *canescens* E.M. Coast sand dunes. Common. Near sea.
  4. *capensis* Pers.
    - capensis* var *angustifolia*. Near Ladysmith, 3-4,000 ft.
    - capensis* var *hirsuta*. Near Newcastle, 4,000 ft.
  5. *diffusa* Harv. Midlands. Common.

6. **discolor** E.M. Coastbelt. Common.
7. **elongata** E.M. Coast and Midlands.
8. **glomeruliflora** Meisn. Near Greytown, 3-4,000 ft.
9. **grandiflora** Pers. Coast and Midlands and Zululand.  
Common in old kaffir gardens.
10. **kraussiana** Meisn. Coast and Midlands. Common.  
"inTsangwana."
11. **longipes** Meisn. Coast and Midlands. Common.
12. **macropoda** Harv. Coast and Midlands. Common.  
"uQwengu" or "Lozane."
13. **oblongifolia** E.M. Inanda, 1,800 ft.
14. **pallens** Pers.
15. **plicata** Oliv.
16. **polystachya** E.M. Coast to Drakensberg. Common.
17. **MUNDULEA** DC.  
**suberosa** Bth. Midlands.
18. **MILLETTIA**. Wight & Arn.
  1. **caffra** Meisn. Tree of coastbelt forests. "umZimbithi."
  2. **sutherlandi** Harv. Tree in Zululand forests. Ngoye.  
"umKunye."
19. **SESBANIA** Persoon.
  1. **aculeata** Poir. Coastbelt. Common.
  2. **aegyptiaca** Poir. Coast and Midlands.
  3. **cinerascens** Welw. Itafamasi and Insuzi.
20. **SUTHERLANDIA** R.Br. "u(lu)Nwele."
 

**frutescens** R.Br. Mountains. Common in Drakensberg,  
especially along streams.
21. **LESSERTIA** DC.
  1. **perennans** DC. Coast to Drakensberg.
  2. **flanagani** L. Bolus.
  3. **dykei** L. Bolus. Mont Aux Sources, 9,800 ft.
  4. **thodei** L. Bolus. Mont Aux Sources, 9,800 ft.
  5. **stenoloba** E.M. Drakensberg, 9,000 ft.
  6. **tenuifolia** E.M. Zululand.
  7. **brachystachya** DC. Ubombo, Zululand. Grassveld.
22. **ASTRAGALUS** L.  
**burkeanus** Schltr. Near Ladysmith, 3-4,000 ft.
23. **AESCHYNOMENE** L.
  1. **erubescens** E.M.
  2. **micrantha** DC. Coast grassveld. Common.
  3. **uniflora** E.M. Vlei near Phoenix Station.
24. **SMITHIA** Ait.  
**sensitiva** Ait. Coast and Midlands. Common.
25. **ARACHIS** L.  
**hypogaea** L. Cultivated "Monkey nut."
26. **STYLOSANTHES** L.  
**mucronata** Willd. Zululand, 500 ft.



27. **ZORNIA** Gmelin.  
*bracteata* J. Gmel. Grassveld. Common.
28. **DESMODIUM** Desv.  
 1. *dregeanum* Bth. Coast and Midlands. Common.  
 2. *gangeticum* DC.  
 3. *hirtum* Guill and Per. Grassveld. Common.  
 4. *incanum* DC. Near Durban.  
 5. *paleaceum* Guill and Pers. Coastbelt and Zululand.  
 6. *scalpe* DC. Coast to Midlands.
29. **PSEUDARTHRIA** Wight & Arn. "uPandosi."  
*hookeri* W. & A. Coast and Midlands. Common.
30. **ALYSICARPUS** Necker.  
*rugosus* DC. Inanda. "inKonazana."
31. **VICIA** L.  
*sativa* L. Introduced.
32. **ABRUS** L.  
 1. *precatorius* L. Cultivated. "umKhokha."  
 2. *pulchellus* Wall. Midlands.
33. **DUMASIA** DC.  
*villosa* DC. Noodsberg, 2,300 ft. Climbing over shrubs.
34. **GLYCINE** L.  
 1. *javanica* L. Coast and Midlands. Common.  
 2. *wilmsii* Harms. Alexandra County.
35. **TERAMNUS** Swartz.  
*labialis* Spreng. Northdene, 800 ft.
36. **ERYTHRINA** L.  
 1. *caffra* Thb. "Kafir Boom." Common tree. Coast and Midlands. "umSintsi."  
 2. *humeana* Spreng. Shrub. Coast and Midlands. "um-Sintsana."  
 3. *tomentosa* R.Br. Midlands. Tree veld. "umNqwabe" or "umKwabakwaba."  
 4. *zeyheri* Harv. Under shrub. Midlands.
- 36a. **GALACTIA** P.Br.  
*tenuiflora* W. and A. Clairmont, 20—40 ft.
37. **CANAVALIA** Adans.  
 1. *bonariensis* Ldl. Sand dunes. Common near sea.  
 2. *obtusifolia* DC. Sand dunes. Common near sea.  
 3. *ensifformis* DC. Inanda.
38. **PHASEOLUS** L.  
*schlechteri* Harms. Near Ladysmith.
39. **VIGNA** Savi.  
 1. *angustifolia* Bth. Coast and Midlands.  
 2. *burchellii* Harv. Zululand.  
 3. *glabra* Savi. Coastbelt vleis.  
 4. *marginata* Bth. Coast and Midlands.

5. *retusa* Walp. Vlei near Durban.
6. *tenuis* D. Dietr. Near Durban.
7. *triloba* Walp. Zululand. "isiKwali."  
    *triloba* var *stenophylla*. Near Durban.
8. *vexillata*. Coast to Drakensberg. Common.
9. *luteola* Bth. Weenen County.
40. **VOANDZEIA** Thouars.  
    *subterranea* Thouars. Cultivated.
41. **DOLICHOS** L.
  1. *altigenus* Schltr.
  2. *angustifolius* E. & Z. Midlands.
  3. *biflorus* L. Northdene, 700 ft.
  4. *gibbosus* Thb. Midlands.
  5. *lablab* L. Coastbelt.
  6. *nodiflora* Bth. Alexandra County.
  7. *sericeus* E.M. Midlands.
42. **RHYNCHOSIA** Lour. (Mostly in grassveld.)
  1. *adenodes* E. & Z. Coast and Midlands. Common.
  2. *bracteata* Bth.
  3. *caribaea* DC. Midlands. Hills above Weenen.
  4. *cyanosperma* Bth. Lower Illovo, 2,000 ft.
  5. *gibba* E.M. Grassveld, all over.
  6. *grandifolia* Steud.
  7. *hirsuta* E. & Z. Coastbelt.
  8. *memnonia* DC. Zululand.
  9. *minima* DC. Near Durban.
  10. *orthodanum* Bth. Common all over.
  11. *ovata* Wood & Evans. Entumeni, Zululand.
  12. *pilosa* Steud. Umzinyati, 300 ft.
  13. *quadrata* Harv. Near Durban.
  14. *reptabunda* N.E.B. Charlestown, 5,000 ft.
  15. *sigmoides* Bth. Near Pinetown.
  16. *totta* DC. Common. Coast and Midlands.
  17. *woodii* Schinz. Inanda.
43. **ERIOSEMA** DC. (Grassveld.)
  1. *cajanoides* Hook.f. Inanda.
  2. *cordatum* E.M. Inanda. "uQontzi."
  3. *distinctum* N.E.B. Nottingham Road.
  4. *kraussianum*. Common in grassveld.
  5. *longipes* N.E.Br. Pinetown.
  6. *parviflorum* E.M. Inanda.
  7. *salignum* E.M. Very common in grassveld all over.  
    "uQontzi."
  8. *squarrosum* Walp. Near Murchison.
44. **FLEMINGIA** Roxb.  
    *congesta* Roxb. Midlands.

45. **DALBERGIA** L. "umZungulu" or "Manyenyane."
  1. *armata* E.M. Coastbelt bush. "umKovati." "umHluluwe."
  2. *obovata* E.M. In bush all over. "uPandhazi." "Pandhlas."
46. **BAPHIA** Afzel.
  - racemosa*. Coast and Midlands. Common. "isiPiti."
47. **CALPURNIA** E.M. (In and around bush). "isiPane."
  1. *intrusa* E.M. In open ground all over. "Hlovane."
  2. *lasiogyne*. Coast and Midlands. "umKhiphampetha."
  3. *villosa* Harv. Uncertain.
  4. *sylvatica* E.M. Coast and Midlands.
  5. *woodii* Schinz. Drakensberg and Midlands.
48. **SOPHORA** Bth.
  - nitens* Bth.
49. **HOFFMANSEGGIA** Cav.
  1. *burchellii* Bth and Hook. Zululand.
  2. *sandersoni* Wood. Tabamhlope, 6,000 ft.
50. **CASSIA** L.
  1. *comosa* Vog. Zululand.
  2. *delagoensis* Harv. Doubtful.
  3. *mimosoides* L. Very common, all over.
  4. *obovata* Collad. Near Durban.
  5. *occidentalis* L. Common, coast and Midlands.
  6. *tomentosa* L.f. Near Durban.
51. **BAUHINIA** L.
  1. *natalensis* Oliv. Coastbelt.
  2. *tomentosa* L. Bluff, near Durban.
52. **SCHOTIA** Jacq. (Trees.) "Hluze."
  1. *brachypetala* Sond. Common in Thorn veld. "umGxama"
  2. *latifolia* Jacq. Thorn veld.
53. **ENTADA** Adans. (Climbers).
  1. *natalensis* Bth. Coastbelt and Midlands. Scrub and forests.
  2. *scandens* Bth. Zululand.
54. **ELEPHANTORHIZA** Bth. "inTolwane." "umDabu."
  - burchellii* Bth. Grassveld. Coast to Drakensberg.
55. **DICHROSTACHYS** DC. "umSasana" or "umGagane."
  - nutans* Bth. Often dominant in coast Thorn veld.
56. **ACACIA** Willd (mostly trees of Thorn veld). "umuNga."
  1. *caffra* Willd var *tomentosa* Glover. Coast and Midlands.
  2. *ataxacantha* DC. Hlabane.
  3. *kraussiana* Meisn. Coast and Midlands. Climber.
  4. *pennata* Willd. Coast and Midlands. Climber.
  5. *eriadenia* Bth. Coast and Midlands.
  6. *spirocarpoides* Engl. Umvoti and Tugela. Scrub.
  7. *clavigera* E.M. Coast and Midlands.
  8. *hebeclada* DC. Near Colenso.

9. *lasiopetala* Oliv. Midlands and Zululand.
10. *benthami* Rochbr. (*arabica* Willd var *kraussiana*.) Dominant over much of Thorn veld, coast and Midlands.
11. *gerrardi* Bth. Coast and Midlands.
12. *hirtella* E.M. Coast and Midlands.
13. *xanthophloea* Bth. Zululand. Common. "Fever tree."
14. *natalitia* E.M. Coast and Midlands.
15. *karroo* Hayne (*horrida* Willd). Dominant over much of Midland Thorn veld.
16. *robusta* Burch. Lower Mooi River.
57. **ALBIZZIA.** Durazzini. "uSolo," or "umBangazi," or "umHlandhloti," or "umGanankawu."
  1. *fastigiata* Oliv. "Flatcrown." Dominant in coast forests.
  2. *welwitschii* Oliv. Near Amatikulu, Zululand.
  3. *mossambicensis* Sim. Umhlatuzi Valley, Zululand.

## FAMILY 70—GERANIACEAE.

Herbs, undershrubs or shrubs. Leaves stipulate. Flowers hermaphrodite. Sepals 5 (rarely 4). Petals 2—8, usually 5. Stamens usually 2 or 3 times petals, some often sterile. Outer whorl opposite petals. Ovary lobed 5 celled, with 2 ovules in each cell (rarely 8 celled with 1 ovule in each cell). Fruit beaked. Carpels separating at maturity. 3 genera 35 species.

1. Flowers irregular with a hollow spur adnate to pedicel.

### 3 PELARGONIUM.

Flowers regular or nearly so. Glands at bases of stamens. 2.

2. Stamens 10.

### 2 GERANIUM.

Stamens 15 (5 bundles of 3).

### 1 MONSONIA.

#### 1. MONSONIA.

1. *attenuata* Harv. Upper districts and Drakensberg.
2. *natalensis* R. Knuth. Midlands.
3. *lanceolata* (Schinz) R. Knuth. Weenen County and Mt. West, 5-6,000 ft.
4. *praemorsa* E.M. Coastbelt.
5. *grandifolia* R. Knuth. Richmond.
6. *biflora* DC. Coast to Drakensberg.
7. *brevirostrata* R. Knuth. Midlands and Drakensberg.

#### 2. GERANIUM L.

1. *alticola* Schltr. Van Reenen, 6-7,000 ft.
2. *canescens* L'Herit. Hills above Howick, 4,000 ft., and Drakensberg.
3. *caffrum* E. & Z. Midlands.
4. *incanum* Burm. Moist places. Midlands and Drakensberg.
5. *lanuginosum* R. Knuth. Midlands and Drakensberg.



6. **magniflorum** R. Knuth. Drakensberg, 7-9,000 ft.
7. **ornithopodum** E. & Z. Common. Coast to Drakensberg.
8. **pulchrum** N.E.Br. Drakensberg vleis.
9. **robustum** Kze. Charlestown, 5-6,000 ft.
10. **thodei** R. Knuth. Drakensberg, 8-10,000 ft.
11. **schlechteri** R. Knuth. Lidgetton, 3,600 ft.

### 3. PELARGONIUM L. Herit.

1. **aconitiphyllum** E. & Z. var **medium** R. Knuth. Common all over.  
**aconitiphyllum** var **angustisectum** R. Knuth. Oakfort.  
**aconitiphyllum** var **latisectum** R. Knuth. Coast and Midlands.
2. **flabellifolium** Harv. Midlands and Drakensberg.
3. **longiscapum** Schltr. Midlands.
4. **woodii** R. Knuth. Newcastle.
5. **bowkeri** Harv. Drakensberg (**woodii** N.E. Br.)
6. **grossularioides** Ait. Mont Aux Sources, 7,000 ft.
7. **capituliforme** R. Knuth. Drakensberg. Tiger Cave Valley, 5,500—7,000 ft.
8. **pseudo-fumarioides** R. Knuth. Drakensberg, near Matatiele.
9. **alchemilloides** Ait var **dentatum** Harv. Midlands and Drakensberg.
10. **inquinans** Ait. Polela, 4-5,000 ft.
11. **sidaefolium** (Thb.) R. Knuth. Midlands.
12. **capitatum**. Coast and Midlands.
13. **lateripes** L. Herit. Greytown. Climbing over trees.
14. **pulverulentum** Sweet. Inanda.
15. **vitifolium** Ait. Inanda.
16. **zonale** Ait. Doubtful.
17. **ranunculophyllum** Baker. Doubtful.

## FAMILY 71—OXALIDACEAE.

Herbs, shrubs or trees. Leaves alternate or radical. Flowers regular, hermaphrodite. Sepals 5. Petals 5 free or united at base. Stamens 10 or 5, filaments united at base. Glands at base of stamens. Ovary superior, 5-celled. Styles 5 free. Ovules axile. Fruit a capsule or berry. Endosperm fleshy. 1 genus 8 species.

Stamens 10, 5 alternate shorter. Herbs.

**OXALIS.**

**OXALIS** L. "isiTate."

1. **bifurca** Lodd. Umzimkulu River.
2. **convexula** Jacq. Upper Tugela. Drakensberg, 4,000 ft.
3. **corniculata** L. Common all over. Ruderal.
4. **pulchella** Jacq. Maritzburg.

5. **semiloba** Sond. Common. Coast and Midlands.  
**semiloba** var **flora plena**. Itafamasi, 2,000 ft.
6. **setosa** E.M. Near Umzimkulu and Drakensberg.
7. **smithiana** E. & Z. Camperdown.
8. **smithii** Sond. Drakensberg.

## FAMILY 72—LINACEAE.

Herbs, shrubs or trees. Leaves undivided. Flowers regular, hermaphrodite. Petals usually 4—5, free, with imbricate or contorted aestivation. Stamens as many or twice as many as petals. Filaments united at base. Ovary 2—10 celled. Ovules 1—2 in each cell, pendulous inverted. Fruit a capsule or drupe. Endosperm fleshy. 1 genus 1 species.

### LINUM L.

**thunbergii** E. & Z. Coast to Drakensberg.

## FAMILY 73—ERYTHROXYLACEAE.

Shrubs or trees. Leaves entire, stipulate. Flowers regular, hermaphrodite. Sepals 5. Petals 5 free. Stamens 10. Filaments united at base. Ovary 3-4 celled, usually with only 1 fertile. Ovules 1—2, pendulous inverted. Style 3—4 fid. Fruit a drupe. Endosperm fleshy. 2 genera 4 species.

Ovary with 1 fertile 1 ovuled cell and 2 empty ones.

### 1 ERYTHROXYLON.

Ovary with 2 fertile cells, 1 ovule in each. Fruit 1 celled.

### 2 NECTAROPETALUM.

1. **ERYTHROXYLON** P. Browne. "umBamatsheni." "umNcaka." "umDabeka."

1. **monogynum** Roxb. Coast and Midlands. Common.
2. **pictum** E.M. Coast and Midlands. Possibly not distinct.
3. **emarginatum** Schum and Thom. Midlands. Possibly not distinct.

2. **NECTAROPETALUM** Engl.

**zuluense** Corbishley (**Erythroxyton zuluense** Schon.) Ngoya forest. "Qweleba."

## FAMILY 74—ZYGOPHYLLACEAE.

Herbs, shrubs or trees. Leaves stipulate. Flowers regular, hermaphrodite (rarely dioecious). Petals 4—5, free, rarely wanting. Stamens 1—3 times as many as petals. Ovary superior, 3—10 celled, lobed, angled or winged. Style usually simple, rarely styles 5. 1 genus 1 species.

Herb with opposite pinnate leaves.

### TRIBULUS.

**TRIBULUS**. Tourn. (Common in grassveld.)

**terrestris** L. Midlands and Drakensberg.

## FAMILY 75—RUTACEAE.

Trees, shrubs or herbs. Leaves gland dotted, usually strongly scented. Flowers hermaphrodite, rarely unisexual. Mostly regular. Sepals 4—5. Petals 4—5, free, rarely 0. Disc usually present. Anthers versatile. Stamens usually 1—2 times petals. Ovary usually 4—5 celled. Ovules usually 2 in each cell. Seeds with or without endosperm. 6 genera 7 species.

1. Fruit dehiscent and more or less fleshy. Leaves trifoliolate or pinnate. 4
2. Leaves pinnate. (*Xanthoxylon*.) 6 FAGARA.  
Leaves simple. 3.
3. Tree. Flowers large, paniculate. 1 CALODENDRON.  
Shrub or undershrub. Flowers small axillary. 2 BAROSMA.
4. Fruit a berry. Leaves pinnate. 5 CLAUSENA.  
Fruit a drupe. Leaves trifoliolate. 5.
5. Stamens as many as petals, 4—5. 4 TECLEA.  
Stamens twice as many as petals 8. 3 VEPRIS.
1. **CALODENDRON** Thb.  
*capense* Thb. "Cape Chestnut." "umBaba." Important timber tree in all forest, except where frosts occur.
2. **BAROSMA** Willd.  
*lanceolata* Sond. Around margins of bush. Coast and Midlands.
3. **VEPRIS** Comm. (Under *Toddalia* Juss.) "uMozane." "um-Bozana." "umGana."  
*lanceolata* A. Juss. "White Ironwood." Common tree in all types of forest and tree veld.
4. **TECLEA** Del. (Under *Toddalia* Juss.)  
*natalensis* (Sond.) Engl. Coastbelt and Midland tree veld.
5. **CLAUSENA** Burni. "umKhambiba." "umSanga." "um-Nukambhiba."  
*inaequalis* Bth. Common tree. Coast and Midland bush. Frequent in Tree veld.
6. **FAGARA** L. (*Xanthoxylon* L.)  
1. *capensis* Thb. Common tree. Coast and Midlands. Bush and Thorn veld. "umNungumabele."  
2. *davyi* Verdoorn. Forest tree. Midlands.

## FAMILY 76—BURSERACEAE.

Trees, rarely shrubs. Leaves usually pinnate. Bark resinous, thick. Flowers regular, mostly polygamous. Calyx 3—5-fid or parted. Petals 3—5 free, deciduous. Stamens twice as many as petals inserted outside the disc. Anthers versatile. Ovary 2—5 celled. Ovules 2 in each cell, pendulous or lateral. Style simple

or 0. Stigma lobed. Fruit drupelike. Seeds exendospermic. 1 genus 2 species.

**COMMIPHORA** Jacq. "Corkwood." "uMumbu."

1. *caryaefolia* Oliv. Common in tree veld.
2. *harveyi* Engl. Tree veld, towards coast.

## FAMILY 77—MELIACEAE.

Trees or shrubs. Leaves exstipulate, usually pinnate. Flowers regular. Petals 3—6, usually free. Stamens as many or twice as many as petals. Filaments usually united. Ovary superior, 2 or more celled. Ovules inverted. Style 1 or 0. Stigma entire or lobed. 5 genera 10 species.

1. Filaments free. Seeds winged. Leaves pinnate.

### 1 PTAEROXYLON.

Filaments more or less united. Seeds not winged. 2.

2. Leaves simple.

### 2 TURRAEA.

Leaves compound. 3.

3. Leaves bipinnate.

### 3 MELIA.

Leaves pinnate. 4.

4. Fruit a capsule, with a leathery rind.

### 5 TRICHILIA.

Fruit fleshy, indehiscent.

### 4 EKEBERGIA.

1. **PTAEROXYLON** E. & Z. "Sneezewood." "umTate."

*utile* E. & Z. Subdominant in some of the south Drakensberg forest. Common or frequent in other forests of coast and Midlands. Occasional in Thorn veld.

2. **TURRAEA** L. "umHuluma." "umHulana." "uLulama."

"Mandhlozane."

1. *floribunda* Hochst. Coast scrub. Common. "umVuma."

2. *obtusifolia* Hochst. Sand dune bush. "umHlathalana."

3. **MELIA** L.

*azedarach* L. Introduced. Cultivated.

4. **EKEBERGIA** Sparm. "umNyamathi."

1. *capensis* Sparm. Common in bush all over. Frequent in Thorn veld or Tree veld.

2. *meyeri* Presl. Common in bush all over.

5. **TRICHILIA** L.

1. *emetica* Vahl. Coastbelt. Common. "Vungu." "um-Khula." "Gxolo."

2. *natalensis* Sond.

3. *alata* N.E.Br. Coast and Midlands.

4. *umbellata* C.DC. Umtwalumi, 2,500 ft.

## FAMILY 78—MALPIGHIACEAE.

Shrubs, undershrubs or climbers. Leaves simple, usually stipulate. Flowers hermaphrodite or unisexual. Sepals 3—5.



Petals 5 free. Stamens usually 10. Ovary superior 2—3 celled, with 1 pendulous, inverted ovule in each cell. Styles 1—3. Fruit usually separating into mericarps. Seed exendospermic. 2 genera 3 species.

1. Leaves usually alternate. Styles 2. Ovary with 2 perfect cells, and 1 rudimentary. Flowers in racemes.

#### 1 ACRIDOCARPUS.

Leaves usually opposite. Styles 3. Ovary 3 celled. Flowers in umbels.

#### 2 SPHEDAMNOCARPUS.

1. **ACRIDOCARPUS** Guill and Perr. "uMabope."  
natalitius Juss. Coastbelt and Zululand. Forest.
2. **SPHEDAMNOCARPUS** Planch.  
1. *galphimiaefolius* A. Juss. Coastbelt. Doubtful.  
2. *pruriens* A. Juss. Coastbelt and Zululand. Forest.

### FAMILY 79—POLYGALACEAE.

Herbs, shrubs, or rarely trees. Leaves simple, entire. Flowers irregular. Sepals 5, the inner 2 usually petal-like. Petals 3—5, more or less adnate to staminal tube. Stamens 5—8. Filaments more or less united. Ovary superior, 1—3 celled. Ovule 1 in each cell, pendulous, inverted. 2 genera 33 species.

Sepals very unequal, the 2 lateral wing-like. 1 **POLYGALA.**

Sepals subequal.

#### 2 MURALTIA.

1. **POLYGALA** L. (Mostly marginal to scrub and forest.)

1. *affinis* DC.
2. *capillaris* E.M. Coastbelt and Zululand. Moist places.
3. *chloroptera* Chod.
4. *confusa* MacOwan. Coast and Midlands.
5. *durbanensis* Chod. Near Durban.
6. *galpini* Hk. Drakensberg and Upper districts.
7. *gerrardi* Chod. Midlands.
8. *hottentotta* Presl. Grassyeld. Common all over.
9. *lysimachaeifolia* Chod.
10. *myrtifolia* L. Tree. Coast scrub. Common.
11. *natalensis* var *foliosa*. Chod. Alexandra County.
12. *neglecta* MacOwan. Coastbelt.
13. *ohlendorffiana* E. & Z. Midlands. Common.
14. *oppositifolia* L. Around margins of bush, all over.  
"Tete."
15. *ophiura* Chod.
16. *persicariaefolia* DC. Weenen County.
17. *producta* N.E.Br. Midlands.
18. *praticola* Chod. Alexandra County, 2,000 ft.
19. *refracta* DC. Tabamhlope, 6,000 ft.
20. *rigens* DC.

21. *serpentaria* E. & Z. Coast and Midlands. Common.
22. *rhinostigma* Chod.
23. *tenuifolia* Link. Drakensberg foothills.
24. *rarifolia* DC. Coast and Midlands. Common.
25. *ukambica* Chod. Weenen County, 3-4,000 ft.
26. *virgata* Thb. Margins of bush. Common all over.
27. *hispida* Burch. Mont Aux Sources, 6,800 ft.
28. *arcuata* Chod. Hoffenthal.

## 2. MURALTIA Neck.

1. *alticola* Schltr. Drakensberg.
2. *flanagani* Bolus. Drakensberg.
3. *pilosa* DC. Common in Midlands.
4. *lancifolia* Harv. Alexandra County.
5. *saxicola* Chodat. Cathkin Peak, 8,500-9,000 ft.

## FAMILY 80—EUPHORBIACEAE.

Herbs, shrubs or trees, often with milky juice. Flowers unisexual. Perianth simple or double or wanting. Stamens definite or indefinite. Ovary superior, usually 3-celled. Ovules 1 or 2 in each cell, pendulous, inverted. Raphe ventral. Micropyle usually covered by an outgrowth of the placenta. Fruit usually capsular or schizocarpic separating into dehiscent mericarps or drupaceous, or of a 2-3 connate nuts. Seeds usually endospermic. 25 genera 107 species.

1. Ovules 1 in each cell of the ovary. 2.  
Ovules 2 in each cell of the ovary. (*Phyllanthaceae*). 22.
2. Partial inflorescence flower-like; 1 female flower surrounded by male flowers of 1 stamen each, and with an involucre of glandular appendages. (*Euphorbieae*). 3.  
Partial inflorescences, not flower-like, etc. (*Crotoneae*). 4.
3. Involucre continuous, rimlike or with 1-5 notches.  
Bushy shrub with terete spineless, succulent branches and large alternate leaves. 1 **SYNADENIUM**.  
Involucre with 2-8 (usually 4-5) separate glands.

### 2 EUPHORBIA.

4. Anthers reversed, and filaments inflexed in bud. Racemes or spikes terminal. Leaves with stellate hairs or scales.

### 9 CROTON.

- Anthers erect, and filaments straight or twice flexed in bud. 5.
5. Petals present in male and sometimes in female flowers. 6.  
Petals absent. 7.
6. Flowers monoecious, rarely dioecious. Stamens 8.

### 10 JATROPHA.

Flowers dioecious, rarely monoecious. Stamens 5.

### 11 CLUYTIA.

7. Calyx lobes of male flower imbricate 8.

- Calyx lobes of male flowers not overlapping. 10.
8. Stamens 3. Filaments united into a slender tube. **24 SPIROSTACHYS.**
- Stamens 6—10. Filaments free. 9.
9. Stamens 6—12, usually 10, 2 seriate peripheral. **19 ADENOCLINE.**
- Stamens 6—60, central. Styles free. **20 GELONIUM.**
10. Styles united to the middle or beyond (mostly climbers). 11.
- Styles free or united at base only. 14.
11. Ovary 1 celled by abortion. **17 MACARANGA.**
- Ovary 3 celled. (Herbs or undershrubs, usually climbing.) 12.
12. Flowers in dense involucrate heads. **21 DALECHAMPIA.**
- Flowers in racemes or spikes. 13.
13. Stamens 30 or more. **22 CTENOMERIA.**
- Stamens normally 3. **23 TRAGIA.**
14. Filaments repeatedly branched. **18 RICINUS.**
- Filaments not branched. 15.
15. Herbs with twining stems. Stamens 30—60. **22 CTENOMERIA.**
- Trees, shrubs, or erect herbs. 16.
16. Male calyx usually 3 lobed, open in bud. Stamens 2—3. **25 SAPIUM.**
- Calyx closed in the bud. 17.
17. Anther cells adnate laterally to a connective throughout their length, short, or dorsifixed. 18.
- Anther cells distinct, free or almost free, attached to the filament by their base or apex only. 19.
18. Styles very long. Stamens usually 8. **16 ALCHORNEA.**
- Styles short, stout. Stamens usually 2—3, rarely numerous. **17 MACARANGA.**
19. Stamens numerous, 15—30. Styles plumosely laciniate. 20.
- Stamens few, 3—8. Styles undivided. 21.
20. Buds perulate. Capsule 2 or 1 coccous, seldom 3 coccous. **12 ERYTHROCOCCA.**
- Buds naked. Capsule 3 coccous. **13 MICROCOCCA.**
21. Anther cells stipitate, plainly separate, oblong or linear, flexuous or twisted. Stamens usually 8. **15 ACALYPHA.**
- Anther halves contiguous, at length spreading, globose. **14 LEIDESIA.**
- Stamens 3—7. **3 BRIDELIA.**
22. Sepals of male flowers valvate in bud. 23.
- Sepals of male flowers imbricate in bud. **4 ANDRACHNE.**
23. Petals present in male flowers. 24.
- Petals absent in male flowers. **8 ANTIDESMA.**
24. Flowers in slender, catkin-like spikes. 25.
- Flowers pedicellate in axillary fascicles or solitary.

25. Disc central, inside stamens. Style or sessile stigmas, much broadened, sometimes wholly united. **7 DRYPETES.**  
 Disc outside stamens or disc glands between the filaments.  
 Styles or style branches rather thin or broadened at apex only. 26.
26. Male flowers without a rudimentary ovary.

**5 PHYLLANTHUS.**

Male flowers with a well-developed rudimentary ovary.

**6 FLUGGEEA.**

1. **SYNADENIUM** Boiss. "umBalele" or "umDiebe."  
*arborescens* Boiss. Shrub in coastbelt scrub.
2. **EUPHORBIA** L. "umSulusulu." "isiHlontlo." "umHlontlo."  
 1. *prostrata* Ait. Annual weed. Introduced. Common.  
 2. *inaequilatera* Sond. Annual herb. Common.  
*inaequilatera* var *perennis*. Near Durban.  
 3. *livida* E.M. Prostrate herb. Seashore.  
 4. *hypericifolia* L. Annual herb. Coastbelt and Midlands.  
 5. *hirta* L. Annual weed. Coastbelt.  
 6. *gueinzii* Boiss. Coast and Midlands.  
*gueinzii* var *albo-villosa* N.E.Br. Inchanga, Dumisa.  
 7. *multifida* N.E.Br. Doubtful.  
 8. *peplus* E.M. Annual weed. Coast and Midlands.  
 9. *striata* Thb. Common all over. In grassveld.  
*striata* var *cuspidata* Boiss. Common.  
 10. *natalensis* Bernh. Common all over.  
 11. *epicyparissias* E.M. Abundant around margins of bush.  
*epicyparissias* var *wahlbergii* N.E.Br. Common.  
 12. *kraussiana* Bernh. Common around bush, coast and Midlands.  
 13. *rhombifolia* Boiss. Midlands. Thorn veld.  
*rhombifolia* var *laxa* N.E.Br. Midlands. Thorn veld.  
 14. *tirucalli* L. Dominant tree over much of the "succulent scrub" in river valleys such as the Tugela. Has been worked for rubber. "uMunde."  
 15. *bupleurifolia* Jacq. Coast and Midlands. Common.  
 16. *truncata* N.E.Br. Estcourt.  
 17. *pugniformis* Boiss. Doubtful.  
 18. *passa* N.E.Br. (*pugniformis* Baker). Coastbelt.  
 19. *franksiae* N.E.Br. Camperdown.  
 20. *woodii* N.E.Br. Coastbelt.  
 21. *discreta* N.E.Br. Mouth of Umzimkulu.  
 22. *tugelensis* N.E.Br. Tugela Valley.  
 23. *grandicornis* Goebel. Zululand.  
 24. *cooperi* N.E.Br. Tree, Umgeni Valley.  
 25. *ingens* E.M. Common tree. Coastbelt to Inchanga.  
 "umPapa."



26. *similis* Berg. Tree. Coastbelt, near Verulam.
27. *triangularis* Desf. Tree. Amanzimtoti.
28. *evansii* Pax. Tree Marianhill.
29. *grandidens* Haw. Botanic Gardens, Durban.
3. **BRIDELIA** Willd. "umHlalamakwaba."  
*micrantha* Baill. Common tree in coast bush. "inCinci."
4. **ANDRACHNE** L.  
*ovalis* Mull. Shrub. (*Phyllanthus ovalis* Sond.) Coast and Midlands.
5. **PHYLLANTHUS** L. "Dhlula mazembe."  
  1. *discoideus* Mull. Coastbelt tree.
  2. *nummulariaefolius* Poir. Undershrub. Coast and Midlands.
  3. *burchelli* Mull. Annual herb. Coastbelt.
  4. *glaucophyllus* Sond. Coast to Drakensberg. Undershrub.
  5. *madaraspatensis* L. Coast to Drakensberg. Woody undershrub.
  6. *incurvus* Thb. Coast and Midlands. Undershrub.
  7. *myrtaceus* Sond. Shrub. Coast and Midlands.
  8. *meyerianus* Mull. Undershrub. Coast and Midlands.
  9. *heterophyllus* E.M. Undershrub. Coastbelt.
6. **FLUGGEA** Willd.  
*microcarpa* Blume. Shrub. or small tree. Coastbelt.
7. **DRYPETES** Vahl. Trees or shrubs.  
  1. *natalensis* Hutchin. Coastbelt.
  2. *arguta* Hutchin. Coast and Midlands. "umHlakela."
  3. *gerrardi* Hutchin. Tugela.
8. **ANTIDESMA** L. "umTshongi." "umHlahla (ta)."  
*venosum* Tul. Common. Coastbelt tree. "isiBangamlota."
9. **CROTON** L.  
  1. *rivularis* E.M. Mooi River.
  2. *sylvaticus* Hochst. Large tree. Common in coast forest.  
"uMinya." "uMbilu." "umHlalajuba." "umZilanyoni."
  3. *menyharti* Pax. Tugela Valley.
  4. *gratissimus* Burch. Midlands. "inTumbanhlosi."  
"maHlabakufane."
  5. *zambesicus* Mull. Tugela Valley.
10. **JATROPHA** L. (Herbs or undershrubs.)  
  1. *curcas* L. Cultivated by natives.
  2. *natalensis* Mull. Midlands.
  3. *latifolia* Pax. Near Durban.
  4. *hirsuta* Hochst. Coast and Midlands. Common "uGodidi."
  5. *woodii* O. Ktze. Ladysmith. Biggarsberg.  
*woodii* var *vestita*. Ladysmith.

**11. CLUYTIA L.** Herbs and shrubs.

1. *katherinae* Pax. Drakensberg.
2. *virgata* Pax and K. Hoffm. Midlands.
3. *laxa* Eckl. Midlands.
4. *glabrescens* Knauf. Zululand. "umSipane."
5. *pulchella* L. Coast and Midlands. Common. "umFiyo."  
"uNgwalene."
6. *pulchella* var *franksiae* Prain. Amanzimtoti and Zululand.
6. *mollis* Pax. Alfred County.
7. *affinis* Sond. Midlands. Qudeni.
8. *natalensis* Bernh. Drakensberg and Midlands. Common.
9. *platyphylla* Pax. & K. Hoffm. Dumisa. Fairfield.
10. *dregeana* Scheele. Marianhill.
11. *hirsuta* E. M. Midlands. Common.
12. *hirsuta* var *robusta*. Prain. Midlands and Drakensberg.
12. *disceptata* Prain. Coast and Midlands. Grassveld. Common.
13. *monticola* S. Moore. Drakensberg and Midlands.
14. *cordata* Bernh. Coast and Midlands.
15. *heterophylla* Thb. Around bush.

**12. ERYTHROCOCCA Bth.** (Herbs.)

1. *natalensis* Prain. Coastbelt.
2. *berberidea* Prain. Coastbelt.

**13. MICROCOCCA Bth.**

- capensis* Prain. Coastbelt and Zululand.

**14. LEIDESIA Mull.**

- capensis* Mull. Ismont, 2,000 ft.

**15. ACALYPHA L.** (Herbs and shrubs.)

1. *sonderiana* Mull. Near Durban.
2. *glabrata* Thb. Common. Coast and Midlands. "isiTom-boti." "umPuputlo."
3. *indica* L. Tugela.
4. *segetalis* Mull. Near Colenso.
5. *petiolaris* Hochst. Common.
6. *eckloni* Buill. Coastbelt.
7. *peduncularis* E.M. Coast and Midlands. "Sununundu."
8. *grandulifolia* Buching. Coast and Midlands.
9. *entumenica* Prain. Entumeni, Zululand.
10. *depressinerva* K. Schum. Coast and Midlands.
11. *angustata* Sond. Durban and Maritzburg.
12. *punctata* Meisn. Common all over.
13. *punctata* var *longifolia*. Midlands.
13. *wilmsii* Pax. Shrubs or trees

**16. ALCHORNEA Sw.** Shrubs or trees.

- glabrata* Prain. Zululand.

**17. MACARANGA** Thouars.

*capensis* Bth. Common coastbelt tree. Sometimes dominant in Hygrophilous bush. "umFongofongo."

**18. RICINUS** L. "Castor Oil." "umHlakuva."

*communis* L. Ruderal. Common all over.

**19. ADENOCLINE** Turcz. Herbs.

1. *bupleuroides* Prain. Common all over.

2. *mercurialis* Turcz. Midlands and Drakensberg.

3. *serrata* Turcz.

**20. GELONIUM** Roxb.

*africanum* Mull. Shrub or tree. Near Durban.

**21. DALECHAMPIA** L. (Usually climbers.)

1. *volubilis* E.M. Near Durban.

2. *capensis* Spreng. Common coast and Midlands.

**22. CTENOMERIA** Harv. (Usually climbing.)

1. *cordata* Harv. Coastbelt.

2. *schlechteri* Prain. Umkomanzi River, 3,000 ft.

**23. TRAGIA** L. (Usually climbing.)

1. *natalensis* Sond. Inanda.

2. *collina* Prain. Colenso, 4-5,000 ft.

3. *meyeriana* Mull. Coast to Drakensberg.

4. *durbanensis* O. Kuntze. Coastbelt.

**24. SPIROSTACHYS** Sond. "umTomboti."

*africanus* Sond. Common coastbelt tree.

**25. SAPIUM** P.Br.

1. *simii* O. Kuntze. Coast and Midlands. Common undersprouts.

2. *reticulatum* Pax. Shrub or tree. Coastbelt.

3. *mannianum* Bth. Common coastbelt tree. "umVumu."  
"umHlalampunzi."

**FAMILY 81—CALLITRICHACEAE.**

Herbs. Leaves opposite, simple, entire. Flowers minute, monoecious. Perianth 0, but bracteoles sometimes 2. Stamen 1. Anthers 2 celled. Ovary 4 celled. Ovules 1 in each cell, pendulous, inverted. Styles 2, free. Fruit separating into 4 mericarps. Seeds endospermic. 1 genus 2 species.

**CALLITRICHE** L.

1. *bolusii* Schön and Pax. Drakensberg.

2. *compressa* N.E.Br. Umbilo, in a stagnant pool

**FAMILY 82—BUXACEAE.**

Shrubs or trees. Leaves opposite, simple, entire. Flowers regular, monoecious. Perianth 4 in male, 4-6 in female flowers.

Stamens 4 or 6. Ovary superior, 3 celled. Ovules 2 in each cell, pendulous, inverted, with a dorsal raphe. Styles 3, free, persisting in fruit. Fruit capsular. Seeds endospermic. 1 genus 1 species.

**NOTOBUXUS** Oliv. "Luxwezo."

**natalensis** Oliv. Shrub. Coastbelt. Rather rare.

### FAMILY 83—ANACARDIACEAE.

Trees or shrubs. Juice resinous. Leaves usually alternate, exstipulate. Flowers usually polygamous. Perianth of calyx and corolla. Stamens 1—15. Ovary superior, 1—5 celled. Ovules solitary in each cell, inverted with dorsal raphe. Fruit usually a drupe. Endosperm little or none. 8 genera 36 species.

1. Leaves simple. Ovary 1 celled, 1 ovuled. 2.  
Leaves compound. 3.
2. Ovule basal. 4 **HEERIA**.  
Ovule lateral, or apical. Coastbelt tree. 5 **PROTORHUS**.
3. Ovary 1 celled 1 ovuled. Sometimes with 1—2 rudimentary cells. 4.  
Ovary 3—5 celled. Stamens 6—15. 7.
4. Stamens 8. Sepals 4. Petals 4. (**Odina**) 3 **LANNEA**.  
Stamens 4—5. 5.
5. Styles terminal. Calyx not enlarged in fruit. Fruit not winged. 6 **RHUS**.  
Styles lateral, thread-shaped. 6.
6. Calyx enlarged in fruit. Leaves pinnate. Stalk winged. 7 **LOXOSTYLIS**.  
Fruit winged. Leaflets 3. 8 **SMODINGIUM**.
7. Sepals free. Stone of fruit with 3—4 lids. 1 **SCLEROCARYA**.  
Sepals more or less united. 8.
8. Sepals 4. Petals 4. Fruit usually 1 seeded (**Odina**). 3 **LANNEA**.  
Sepals 5. Petals 5. Stone of fruit with 2 fertile and 2 sterile cells. 2 **HARPEPHYLLUM**.
1. **SCLEROCARYA** Hochst (Tree).  
**caffra** Sond. Coast and Midlands. Common.
2. **HARPEPHYLLUM** Bernh. (Tree.) "Kafir Plum," "umGwenye."  
**caffrum** Bernh. Coast and Midlands. Common.
3. **LANNEA** Rich. (**Odina** Roxb.)  
**edulis** (Sond) Engl. Midlands. Inanda. "umToto."
4. **HEERIA** Meisn.  
**paniculosa** (E.M.) O. Ktz. Weenen.
5. **PROTORHUS** Engl. "umHluti." "isiFuce." "isiFici." "umKomizo."  
**longifolia** Engl. Dominant tree in coastbelt forest.



**6. RHUS L.** (Trees and shrubs.) "inTlokoshane." "isiHiakoti."

1. *crenata* Thb. Groenberg, 2,000 ft.
2. *cuneata* N.E.Br. Near Ladysmith.
3. *dentata* Thb. Coast to Drakensberg. Common.
4. *discolor* E.M. Grassveld. Common all over.
5. *excisa* Thb. Tugela Valley. 3,000 ft. alt.
6. *grandidens* Harv.
7. *grandifolia* Eng., Inanda.
8. *gerrardi* Harv. Drakensberg. "inTovane."
9. *gueinzii* Sond. "Ngana."
10. *laevigata* L. Tree. Common in bush. "Red currant."  
"isi Banda."
11. *lucida* L. Common.
12. *montana* Diels.
13. *natalensis* Bernh. Coastbelt.
14. *obovata* Sond. Thorn veld. Common.
15. *oblanceolata* Schinz. 5,000 ft. alt. Thorn veld. Common.
16. *parvifolia* Harv. Umzinyati. 300 ft.
17. *pentheri* A. Zahlbr.
18. *puberula* E. & Z. Midlands.
19. *pyroides* Burch. Drakensberg.
20. *refracta* E. & Z.
21. *rehmanniana* Engl. Drakensberg.
22. *rupicola* Wood & Evans. Howick.
23. *sonderi* Engl. var *pilosa* Engl. Drakensberg.
24. *tridentata* Sond. Inanda.
25. *truncata* Schinz. 7,000 ft. alt.
26. *villosa* L. Common. Thorn veld. "Hlokoshiyane."  
*villosa* var *gracilis* Eng. Drakensberg. Maritzburg.
27. *villosissima* Engl. Ellesmere, 2,000 ft.
28. *viminalis* Vahl. Tree. Common all over.
29. *zeyheri* var *gerrardi* Engl. Drakensberg.

**7. LOXOSTYLIS Spr.**

*alata* Spr. Coastbelt tree. Doubtful.

**8. SMODINGIUM E.M.**

*argutum* Sond. Locally abundant in Thorn veld.

**FAMILY 84—AQUIFOLIACEAE.**

Shrubs or trees. Leaves alternate. Flowers regular, dioecious. Calyx 4—7 cleft. Petals 4—7, united at base. Stamens 4—7. Ovary superior, 4—8 celled. Style short or 0. Stigma lobed. Ovules 1—2, in each cell, pendulous inverted, covered by a cupular expansion of the funicle. Fruit a drupe with 4—8 one-seeded stones. Seeds endospermic. 1 genus 1 species.

**ILEX. L.** "uBupupu." "umDuma." "iPupuma."

**mitis** (L.) Rad. Tree. Common near streams. Coast to Drakensberg.

## FAMILY 85—CELASTRACEAE.

Shrubs or trees. Leaves simple, stipulate. Flowers regular. Sepals 4—5. Petals 4—5 free, imbricate in bud. Disc present. Stamens 4—5, alternating with petals. Filaments free. Ovary superior or sunk in the disc, 2—5 celled, rarely (**Pleurostylia**) 1 celled. Ovules 1—8 in each cell, inverted. Style 1 or 0. Seed usually endospermic. 5 genera 29 species.

1. Fruit capsular. Seeds with an aril. Leaves alternate. 2.  
Fruit a drupe or nut. Seeds without an aril. 4.
2. Ovules 3—6 in each cell. **3 PUTTERLICKIA.**  
Ovules 2 in each cell. 3.
3. Capsules winged. Ovary usually ribbed. Disc 5 lobed.

### **2 PTEROCELASTRUS.**

Capsules not winged. Ovary not ribbed. Disc faintly lobed.

### **1 GYMNOSPORIA.**

4. Ovary 1 celled. Ovules 2—8. Style lateral.

### **4 PLEUROSTYLIA.**

Ovary 2—4 celled. Ovules 1—2 in each cell.

### **5 ELAEODENDRON.**

#### **1. GYMNOSPORIA** Wight & Arn. (Under **Celastrus** L.)

1. **albata** (N.E.B.) Sim. Thorn veld. "umDanghan."
2. **acuminata** (L.f.) Szysz. Rather rare. Thorn veld.  
"umNama."
3. **angularis** (Sond) Sim. Coastbelt. Inanda. Locally common.
4. **buxifolia** (L.) Szysz. Common all over. Bush and Thorn veld. "isiBubu." "inGqwangane."
5. **concinna** (N.E.Br.) Inanda. Lidgetton.
6. **cordata** E.M. Near Durban. "umNama." "umVama."
7. **laurina** (Thb.) Sand dunes.
8. **nemorosa** (E. & Z.) Szysz. Midland forests.
9. **peduncularis** (Sond) Sim. Midland forests. "Membesa."  
"inQai" or "umQai."
10. **polyacantha** (Sond.) All over.
11. **procumbens** (L.f.) Near Durban.
12. **rehmanni** Szysz. Camperdown, 2,500 ft.
13. **ruber** (Harv.) Entumeni, Zululand. 2,000 ft.
14. **rudatisii** Loes. Fairfield, Dumisa, 2-3,000 ft.
15. **undata** (Thb.) Szysz. Inanda.
16. **woodii** Szysz. Inanda.

#### **2. PTEROCELASTRUS** Meisn. "Zahlulumanye."

1. **echinatus** N.E.Br. Zululand, 2,000 ft.

2. *rostratus* Walp. Zululand, 6,000 ft.
3. *variabilis* Sond. Common all over. "Tywina."
3. **PUTTERLICKIA** Endl.  
*verrucosa* E.M. Frequent in Thorn veld.
4. **PLEUROSTYLIA** Wight & Arn. "umTumyalele." "um-Gqangqa."  
*capensis* Oliv. Tree. Midlands and Drakensberg.
5. **ELAEODENDRON** Jacq. (including *Cassine* L. in part and *Mystroxylon* E. & Z.) "um or Nqayi," or "Ngai."
  1. *capensis* E. & Z. Inanda.
  2. *aethiopicum* Oliv. Frequent in Thorn veld.
  3. *croceum* DC. Frequent in Thorn veld. "umBomvane."
  4. *laurifolium* Harv. Zululand. Inanda. Sand dunes.
  5. *velutinum* Harv. Coast. Sand dune bush.
  6. *kraussianum* Sim. Midlands. Common in Thorn veld.  
 "umKukuze." "umBofanyamagone."
  7. *sphaerophyllum* Presl. Midlands. Common in Thornveld.
  8. *albanensis* (Sond). Coast and Midland bush. Climber.  
 "uMaboqe."

### FAMILY 86—HIPPOCRATEACEAE.

Shrubs or trees. Leaves simple. Flowers regular. Calyx 5-partite. Petals 5, free, inserted below a disc. Stamens 3—5, inserted on or within the disc. Ovary 3 celled. Ovules inverted, 2—10 in each cell. Style 1 or 0. Fruit a capsule, drupe or separating into mericarps. Seeds exendospermic. 1 genus 2 species.

**SALACIA** L. (Stamens 3.) Scandent rambling shrublets.

1. *alternifolia* Hochst. Common coastbelt. "iBontsi."
2. *gerrardi* Harv. Coastbelt.

### FAMILY 87—SALVADORACEAE.

Shrubs or trees. Leaves opposite, simple, entire with minute stipules. Flowers regular. Calyx 2—4 cleft. Petals 4, rarely 5, free or united at base. Stamens as many as and alternate with petals. Sometimes also 4—5 staminodes. Ovary superior 1—2 celled. Ovules 1—2 in each cell, erect, inverted. Style 1. Short. Fruit a berry or drupe. Seeds endospermic. 1 genus 1 species.

**AZIMA** Lam. (Petals 4, ovary 2 celled, dioecious.)

- tetracantha* Lam. Shrub with 4 spines in axils of leaves.  
 Thorn veld. "Gegeye."

### FAMILY 88—ICACINACEAE.

Trees or shrubs. Leaves exstipulate. Flowers hermaphrodite or unisexual, regular. Perianth simple or of calyx and corolla.

Stamens 4—5. Ovary superior. 1 celled. Ovules 2, pendulous, inverted, with a dorsal raphe. Style 1 or 0. Fruit a drupe. Seed 1. 3 genera 4 species.

1. Flowers in spikes, unisexual. Perianth 4 parted. Climber.

### 1 PYRENACANTHA.

Flowers hermaphrodite or polygamous. Calyx and corolla present. Trees or shrubs. 2.

2. Petals free. Sepals usually united high up. 2 APODYTES.

Petals united. Sepals united only at base.

### 3 CASSINOPSIS.

1. PYRENACANTHA Hook. "umSekelo."

*scandens* Planch. Coastbelt bush. Climber.

2. APODYTES E.M. "umDakane."

*dimidiata* E.M. Tree. Common all over.

3. CASSINOPSIS Sond. (Shrubs.)

*capensis* Sond. Midlands. Fairly common. "Hlazane."

*tinifolia* Harv. Coastbelt. Rarer. "Mamba-eli-hlaza."

## FAMILY 89—SAPINDACEAE.

Trees, shrubs or rarely herbs. Leaves alternate, usually compound. Flowers polygamous or unisexual. Calyx 4—5 parted. Petals 4—5 or 0. Stamens 4—24, usually 8, inserted within the disc. Ovary superior, 2—8 usually 3 celled, sometimes only 1 fertile. Ovules 1—2 in each ovary cell. Curved. Style 1. Seeds exendospermic. 6 genera 10 species.

1. Ovules 2 or 3 in each cell of ovary. 2.

Ovules 1 in each cell of ovary. 3.

2. Petals present.

### 3 HIPPOBROMUS.

Petals absent. Fruit a winged capsule.

### 6 DODONAEA.

3. Herbaceous climber. Fruit a winged capsule.

### 1 CARDIOSPERMUM.

Trees or shrubs. 4.

4. Leaves pinnate. 4 SAPINDUS.

Leaves simple or trifoliate. 5.

5. Sepals 4. 2 ALLOPHYLUS.

Calyx 5 lobed. 5 PAPPEA.

1. CARDIOSPERMUM L.

*halicacabum* L. Coastbelt herb. "iKambileziduli."

2. ALLOPHYLUS L. (*Schmidelia* L., *Allophyllus* Gleditsch.)

1. *decipens* Radkl. Coast and Midlands. "umCandotambo."

2. *erosus* Radkl. Sand dune shrub. Abundant.

3. *melanocarpus* Radkl. (*S. africana* DC). Coast and Midlands. "umHloshazana."

4. *monophyllus* Radkl. Coast and Midlands. "Hlaguti."  
"maTandazana."



5. *rehmannianus* (Szysz). Near Durban.
3. **HIPPOBROMUS** E. & Z. "uDwiya." "uQume." "isiTime."  
*alata* E. & Z. Small tree. Common in Thorn veld.
4. **SAPINDUS** L. "iGololenkama." "umZinkawa." "Masibele."  
*oblongifolius* Sond. Common in coastbelt bush.
5. **PAPPEA** E. & Z. "iLitye."  
*capensis* E. & Z. Lower Mooi River.
6. **DODONAEA** L.  
*viscosa* Jacq. Coastbelt.

## FAMILY 90—MELIANTHACEAE.

Trees or shrubs. Leaves alternate. Flowers hermaphrodite. Sepals 4—5, free or united at base. Petals 4—5. Stamens 4—10 inserted within the disc. Ovary superior, 4—5 celled. Style 1. Fruit a capsule. Seeds endospermic. 3 genera 7 species.

1. Leaves simple, exstipulate. Stamens 10. **1 GREYIA.**  
 Leaves pinnate, stipulate. Stamens 4—5. **2.**
2. Sepals very unequal. Petals 4, rarely 5, shorter than sepals.  
**2 MELIANTHUS.**
- Sepals nearly equal. Petals 5 longer than sepals.  
**3 BERSAMA.**

1. **GREYIA** Hk. & Harv. "inDalu."  
*sutherlandi* Hk. and Harv. In rocky places. Midlands and Drakensberg. Common.
2. **MELIANTHUS** L.  
 1. *insignis* O. Kuntze. Charlestown. Wet places.  
 2. *villosus* Bolus. Midlands and Drakensberg. Wet places.
3. **BERSAMA** Fres.  
 1. *abyssinica* Fres.  
 2. *tysoniana* Oliv. Uncertain.  
 3. *lucens* Szysz. Coast and Midlands. "isiNdiyandya."  
 4. *stayneri* Phillips. Ingeli. Riverside.

## FAMILY 91—BALSAMINACEAE.

Succulent herbs. Leaves simple, exstipulate. Flowers irregular, hermaphrodite. Sepals 3 (or 5 with 2 minute), posterior spurred. Petals 5 or 3. Stamens 5. Anthers imperfectly united. Ovary superior, 5 celled. Ovules 3 or more in each cell, pendulous, inverted, with dorsal raphe. Style 1. Stigmas 1 or 5. Fruit dehiscing elastically. Seeds exendospermic. 1 genus 2 species.

### IMPATIENS L.

1. *capensis* Meerb. Common all over in damp bush.  
 2. *flanaganae* Hemsley. Umtwalumi, 1,500 ft.

## FAMILY 92—RHAMNACEAE.

Trees or shrubs. Leaves simple, stipulate or (**Phyllica**) exstipulate. Flowers regular, hermaphrodite or polygamous. Receptacle cup shaped. Sepals 4—5. Petals 4—5 or 0. Stamens 4—5 alternating with sepals. Ovary 2—4 celled. Ovule 1 in each cell, basal inverted. Seeds endospermic. 6 genera 9 species.

1. Ovary free, not sunk. Leaves penninerved. 2.

Ovary inferior or half inferior, or sunk in the disc. 3.

2. Disc thin. Styles 3—4. **2 RHAMNUS.**

Disc fleshy lining calyx tube. Style 1 short. **3 SCUTIA.**

3. Ovary sunk in disc. Leaves 3—5 nerved from base. Stipules spiny. **1 ZIZYPHUS.**

Ovary inferior or half inferior. Leaves penninerved or exstipulate. 4.

4. Ovary half inferior. Style simple, 3 angled. Stigma 3 lobed. **4 NOLTEA.**

Ovary inferior. Limb of calyx persistent. 5.

5. Style simple. Stigma 3 lobed or entire. Leaves exstipulate. **6 PHYLLICA.**

Style 3 cleft. Leaves stipulate, broad, suborbicular.

**5 HELINUS.**

1. **ZIZYPHUS** Juss. "imBufa." "umPafa." "umLahlankosi."

1. **mucronata** Willd. Common all over. Bush and Thorn veld, especially in fairly deep soil. "Wait a bit" thorn.

**mucronata** var **glabrata** Sond. Pinetown, Camperdown, Maritzburg.

**mucronata** var **pubescens** Sond. Inanda.

2. **zeyheriana** Sond. On rocks, near Ladysmith.

2. **RHAMNUS** L.

1. **prinoides** L'Herit. "Blinkblaar." Common in scrub.

Coast to Drakensberg. "uNyenye."

2. **zeyheri** Sond. Camperdown. Lower Umzimkulu. "Red Ivory." "umGologoti."

3. **SCUTIA** Brogn. "inGqapunana." "umSondeza."

**indica** Brogn. "Katdoorn." Common in bush and thorn veld. All over.

4. **HELINUS** E.M. "uBupupu."

**ovata** E.M. Climber in bush. Common.

**ovata** var **rotundifolia** Sond.

5. **PHYLLICA** L. "umDidi." "umHlulamite."

1. **paniculata** Willd. Rocky places. Margins of bush. Common.

2. **oleaeifolia** Vent.

6. **NOLTEA** Reich.

**africana** Reich. Coastbelt. Umzinyati Falls, 1,000 ft.

## FAMILY 93—VITACEAE.

Shrubs or undershrubs, usually climbing. Leaves alternate, stipulate. Flowers regular, in cymose inflorescences. Calyx small, cup-shaped. Petals 3—7, free or united. Stamens as many as and opposite the petals. Ovary 2—8 celled, on or sunk in the disc. Ovules 1—2 in each cell, inverted with ventral raphe. Style 1, sometimes indistinct. Stigma entire or 2—4 lobed. Fruit a berry. Seeds endospermic. 2 genera 19 species.

Petals 5 or 6, rarely 4 or 7, thickened fleshy. Disc adnate to ovary.

Style usually short.

### 1 RHOICISSUS.

Petals 4, not thickened. Disc saucer shaped 4 lobed and adnate to ovary at base only. Style usually long.

### 2 CISSUS.

#### 1. RHOICISSUS Planch. (Climbers.) “isiNwazana.”

1. *capensis* (Willd) Planch. Coast and Midlands. Common. “umNungwane.”
2. *cirrhiiflora* (L.f.) Gilg. and Brandt (*cuneifolia* Planch). Coast to Drakensberg. “isiNwasi.”
3. *digitata* Gilg. and Brandt. Coast to Drakensberg.
4. *erythrodes* Planch. Coast to Drakensberg.
5. *rhomboidea* (E.M.) Planch. Coast and Midlands. “umTwazi.”

#### 2. CISSUS L.

1. *cirrrosa* Thb. Coast and Midlands. Bush and Thornveld.
2. *connivens* Lam. Coast to Drakensberg.
3. *cussonioides* Schinz. Midlands and Drakensberg.
4. *fragilis* E.M. Coastbelt. Common.
5. *gracilis* G. & P. Zululand.
6. *humilis* (N.E.Br.) Planch. Midlands. Prostrate plant.
7. *hypoleuca* Harv. Coastbelt. “uDekane.”
8. *lanigera* Harv. Coastbelt.
9. *sandersonii* Harv.
10. *scarlatina* Gilg & Brandt.
11. *quadrangularis* L. Zululand and Coastbelt.
12. *quinata* Ait.
13. *woodii* Gilg. and Brandt. Midlands.
14. *flaviflora* Sprague. Coastbelt.

## FAMILY 94—TILIACEAE.

Trees, shrubs or herbs. Leaves with deciduous stipules. Flowers regular. Sepals 4—5, valvate in bud. Petals 4—5 or 0. Stamens 10 or more, rarely 5—9, free or united in 4—10 bundles. Anthers 2 celled. Ovary superior 2—10 celled. Style 1. Stigmas 2—10. Seed endospermic. 4 genera 16 species.

1. Flower 4 parted. Outer stamens sterile.

**3 SPARMANNIA.**

Flower usually 5 parted. Outer stamens not sterile. 2.

2. Receptacle not stalklike. Anthers linear or oblong.

Prostrate herbs.

**4 CORCHORUS.**

Receptacle forming a stalklike column which bears stamens and ovary. Anthers roundish. Trees, shrubs or erect herbs. 3.

3. Tall erect herbs. Fruit spiny.

**2 TRIUMFETTA.**

Trees and shrubs. Fruit fleshy.

**1 GREWIA.**

**1. GREWIA L.** "iKlolo."

1. *angolensis* Welw. Maritzburg. Doubtful.
2. *caffra* Meisn. Common in coast bush and Thorn veld.
3. *flava* DC. Thorn veld.
4. *hispida* Harv. Stony places. Midlands and Drakensberg bush.
5. *lasiocarpa* E.M. Creeper. Common. Coast and Midland bush and Thorn veld.
6. *flavescens* Juss. Midlands. Doubtful.
7. *occidentalis* L. Common. Coast to Drakensberg. In bush and Thorn veld. "iLalanyathi."

**2. TRIUMFETTA L.** Weeds.

1. *annua* L. Weeds.
2. *effusa* E.M. Common all over.
3. *rhomboidea* Jacq. Common all over. "iNothwane."
4. *sonderi* Ficalho and Hiern. Zululand.

**3. SPARMANNIA L.f.**

*palmata* E.M. Coast and Midlands. Common.

**4. CORCHORUS L.**

1. *asplenifolius* Burch. Common in Midland. Grassveld.
2. *serraefolius* Burch. Greytown.
3. *trilocularis* L. Midlands and Zululand.
4. *discolor* N.E.Br. Near Stanger, 150 ft.

## FAMILY 95—MALVACEAE.

Trees, shrubs or herbs. Leaves simple, stipulate. Flowers regular. Calyx 5, rarely 3—4 cleft, valvate in bud. Petals 5, adhering to staminal tube with contorted aestivation. Stamens many, united in a tube. Anthers 1 celled. Pollen grains large prickly. Ovary superior, 3 or more celled, or apocarpous. Seeds endospermic. Embryo curved. 9 genera 40 species.

1. Style branches 10, twice as many as carpels. **6 PAVONIA.**

Style branches as many as carpels or 1. 2.

2. Staminal tube loaded with anthers at the top. Carpels separable, disposed in a ring round central axis.

(Malveae) 3.



- Staminal tube with anthers on outer face. Carpels united in a capsular fruit. (**Hibisceae.**) 7.
3. Carpels with 1 ovule each. 4.
- Carpels with 2 or more ovules. 6.
4. Ovule pendulous. Epicalyx absent. **3 SIDA.**
- Ovule ascending. Epicalyx of 3 bracteoles present. 5.
5. Style branches pointed bearing stigma on inner face.

**1 MALVA.**

Style branches capitate, with stigma at the thickened apex.

**2 MALVASTRUM.**

6. Epicalyx of 3 bracteoles present. **5 SPHAERALCEA.**
- Epicalyx absent. **4 ABUTILON.**
7. Style split into fairly long branches. Ovary 5 celled.

**7 HIBISCUS.**

- Style simple or split into very short erect branches. 8.
8. Calyx not dotted. Ovary 5 celled. **9 THESPESIA.**
- Calyx sprinkled with black dots. Ovary 3—4 celled.

**8 CIENFUEGOSIA.****1. MALVA L.**

*parviflora* L. Drakensberg and Midlands. Ruderal.

**2. MALVASTRUM A. Gray.**

*capense* Gray & Harv. Izingolweni, 2,000 ft.

**3. SIDA L.**

1. *acuta* Burm. Near Durban.
2. *cordifolia* L. Coastbelt.
3. *capensis* E. & Z. Coast and Midlands.
4. *rhombifolia* L. Common all over, often ruderal.
5. *spinosa* L. Oakford, 1,000 ft.
6. *triloba* Cav. Midlands.
7. *longipes* E.M. Common.

**4. ABUTILON Gaertn.**

1. *indicum* Sweet. Coastbelt.
2. *sonneratianum* Sweet. Coast to Drakensberg.

**5. SPHAERALCEA St. Hil.**

*pannosa* Bolus. Mt. Erskine, 6-7,000 ft.

**6. PAVONIA L.**

1. *columella* Cav. Inanda, 1,800 ft.
2. *dregei* Gurcke. Near Durban.
3. *kraussiana* Hochst. Coastbelt.
4. *odorata* Willd. Coastbelt.
5. *urens* Cav. Tugela Valley.

**7. HIBISCUS L.**

1. *aethiopicus* L. Coast to Drakensberg.
2. *atromarginatus* E. & Z. Upper Tugela. Drakensberg.
3. *calycinus* Willd. Coast and Midlands.
4. *cannabinus* L. Coast and Midlands. Common.

5. *diversifolius* Jacq. Coastbelt and Zululand.
6. *furcatus* Roxb. Near Stanger, 150ft.
7. *gossypinus* Thb. Coast and Midlands. Around bush.
8. *leiospermus* Harv. Van Reenen. Drakensberg.
9. *malacospermus* E.M. Weenen and Drakensberg.
10. *micranthus* L. Greytown.
11. *natalitius* Harv. Coastbelt, rare.
12. *pedunculatus* Cav. Coast and Midlands. Common.
13. *physaloides* G. & P. Coastbelt weed.
14. *pusillus* Thb. Coastbelt, Midlands, and Zululand.
15. *ricinifolius* E.M. Midlands.
16. *saxatilis* Wood & Evans. Drakensberg, 5-6,000 ft.
17. *surrattensis* L. Coast and Midlands. "inCathucathu."
18. *tiliaceus* L. Around seacoast, lagoons. Common. "um-Lolo."
19. *trionum* L. Common all over. Weed.  
*trionum* var *hispidus*. Drakensberg. Moist places.  
*trionum* var *hastaefolius*. Inanda, 2,000 ft.
20. *verrucosus* G. & P. Ifafa, 1,800 ft.
8. **CIENFUEGOSIA** Cav. (*Fugosia* Juss.)  
*gerrardi* (Harv.) Camperdown.
9. **THESPESIA** Corr.  
1. *rehmanni* Szysz. Ladysmith. Doubtful.  
2. *populnea* Cav. Zululand.

## FAMILY 96—STERCULIACEAE.

Trees, shrubs or herbs. Leaves alternate, stipulate. Sepals 4—7, more or less united. Petals 5 or 0. Stamens 5 or more. Filaments more or less united. Anthers 2 celled. Ovary superior 4—10, rarely 1 celled, or apocarpous. Ovules inverted, usually 2 or more to each carpel. Seeds usually endospermic. 5 genera. 36 species.

1. Flowers unisexual, without a corolla. **1 COLA.**  
Flowers hermaphrodite or polygamous, with a corolla. 2.
2. Stamens 5. Staminodes minute or wanting. 3.  
Stamens 10 or more, or if 5, then alternating with long staminodes. 4.
3. Filaments free. Ovary 5 celled. **2 HERMANNIA.**  
Filaments united below. Ovary 1 celled.
- 3 WALTHERIA.**
4. Fertile stamens 5. **4 MELHANIA.**  
Fertile stamens 10 or more. **5 DOMBEYA.**
1. **COLA** Schott. "iliTenenende."  
*natalensis* Oliv. Coastbelt. Tree.
2. **HERMANNIA** L. (including *Mahernia* L.)  
1. *cristata* Bolus. Upper districts. Common.

2. **sandersoni** Harv. Inchanga.
3. **grandistipula** K. Schum. Midlands and Drakensberg.  
Common.
4. **vernicata** (Burch) K. Schum. Between Maritzburg and Greytown.
5. **coccocarpa** (E. & Z.) K. Schum. Drakensberg and upper districts.
6. **gerrardi** Harv. Midlands and Drakensberg.
7. **transvaalensis** Schinz. Drakensberg, 7,000 ft.
8. **woodii** Schinz. Midlands, 2-4,000 ft.
9. **auricoma** (Szyszyl) K. Schum. Midlands.
10. **depressa** N.E.Br. Midlands and Drakensberg. Common.
11. **saccifera** (Turcz) K. Schum. Maritzburg.
12. **parviflora** (E & Z.) K. Schum. Midlands.
13. **betonicifolia** E. & Z. Bet. Greytown and Newcastle.
14. **geniculata** E. & Z. Drakensberg.
15. **schlechteriana** Schinz, MS. Zuurberg, 4-500 ft.
16. **malvifolia** N.E.Br. Bushmans River, Drakensberg, 6,500 feet.
17. **modesta** (Ehrenb) Planch.
18. **brachypetala** Harv. Zululand.
19. **gracilis** (Harv.) Zululand.
20. **oligosperma** K. Schum. Amahwaqa, 6-7,000 ft.
21. **velutina** DC. Melvern, 600 ft.
22. **veronicifolia** (E. & Z.) K. Schum. Glencoe, 4-5,000 ft.
23. **wilmsii** Engl. Midlands.
24. **medleyi** Engl. Newcastle.
3. **WALTHERIA** L.  
**americana** L. var **indica** (L.) K. Schum. Umzinyati, 800 ft.
4. **MELHANIA** Forsk.
  1. **didyma** E. & Z. Midlands.  
**didyma** var **linearifolia**. Szyszyl.
  2. **prostrata** P.DC.
  3. **ovata** Spreng var **oblongata** K. Schum.
5. **DOMBEYA** Cav. "iBunda."
  1. **cymosa** Harv. Upper Umlaas and Mooi River, 3,000 ft.  
"umXaba."
  2. **burgessiae** Gerr. Klip River and Zululand.  
**burgessiae** var **crenulata** Szyszyl. Newcastle and Biggarsberg.
  3. **dregeana** Sond. Coast and Midlands.
  4. **gracilis** K. Schum. 250 ft. alt.
  5. **natalensis** Sond. Coast and Midlands. Common.
  6. **rotundifolia** Planch. Coastbelt and Midlands. Common. "Hlibehlo."

7. **pulchra** N.E.Br. Hlabisa, Zululand.

### FAMILY 97—OCHNACEAE.

Trees and shrubs. Leaves alternate, simple, usually stipulate. Flowers regular, hermaphrodite. Sepals 4—6. Petals 4—6 free, deciduous. Anthers opening by apical pores. Carpels almost free, but with a common style, or united. Ovules with vantral raphe. Fruit in **Ochna** drupaceous. Seed exendospermic. 1 genus 3 species.

**OCHNA** L. “umHlezane.” “umTelelo.” “umTensema.”  
“Hlazane.”

1. **arborea** Burch. Tree. Coast and Midlands. In bush.
2. **atropurpurea** DC. Shrub. Coast and Midlands. Outside bush.
3. **natalitia** Engl. & Gilg. Drakensberg.

### FAMILY 98—GUTTIFERAE.

Trees, shrubs or herbs. Leaves opposite, undivided. Flowers regular, hermaphrodite or polygamous. Sepals 4—5. Petals 4—5. Stamens numerous. Ovary superior, 1—many celled. Styles 1—many. Seeds exendospermic. 2 genera 6 species.

1. Styles 3—5. Herbs or undershrubs. **1 HYPERICUM.**

Style 1. Small tree.

**2 GARCINIA.**

#### 1. **HYPERICUM** L.

1. **aethiopicum** Thb. In grassveld. Common “uSukum-bili.”
2. **alandii** Choisy. In vleis. Common.  
**alandii** var **macropetalum** Drakensberg.  
**alandii** var **lanceolatum**. Drakensberg.
3. **lanceolatum** Lam. Moist places. Midlands. Shrub.
4. **natalensis**. Wood & Evans. Mooi River, 4,000 ft.

#### 2. **GARCINIA** L. “isiBinda.”

1. **gerrardi** Harv. Bush. Coastbelt tree.
2. **natalensis** Schltr. Fairfield, Alexandra County, 2-3,000 ft.

### FAMILY 99—VIOLACEAE.

Herbs, shrubs or trees. Leaves simple. Flowers more or less irregular. Sepals 5. Petals 5, free. Stamens 5. Ovary superior sessile, 1 celled, with 3 parietal placentas. Ovules inverted. Style 1. Fruit a capsule, loculicidal. Seeds exendospermic. 2 genera 6 species.

1. Flowers distinctly irregular. Lower petal saccate or gibbous.

Herbs or undershrubs. (**Ionidium**.) **1 HYBANTHUS.**

Flowers nearly regular. Petals subequal, not saccate.

Shrubs or trees.

**2 RINOREA.**



1. **HYBANTHUS** Jacq. (*Ionidium* Vent.)
  1. *caffer* (Sond) Engl. Coastbelt.
  - caffer* var *angustifolius* Engl.
  2. *capensis* (R. & Sch.) Engl. Inanda, 1,800 ft.
  3. *natalensis* (Harv.) Inanda. Doubtful.
  4. *thymifolius* (Presl.) Engl. Zululand.
2. **RINOREA** Aubl. "isiKatankobu." "Twakele."
  1. *ardisiaefolia* (Welw.) Sim. Coast and Midlands.
  2. *natalensis* Engl. Noodsberg 2,500 ft.

## FAMILY 100—FLACOURTIACEAE.

Trees or shrubs. Leaves undivided, usually stipulate. Flowers regular, hermaphrodite or unisexual. Petals free or 0. Stamens as many as sepals or more. Ovary superior or half inferior 1 celled (rarely 2 or more celled) with usually 2—8 parietal placentae. Ovules 3 or more, rarely 2, inverted. Seeds usually endospermic. 10 genera 21 species.

1. Perianth leaves arranged spirally, the inner with small scale-like appendages at the base, the outer much smaller.

### 1 RAWSONIA.

Perianth leaves whorled. Sepals and petals present or sepals only.

2. Petals present.
- Petals absent.
3. Petals more than sepals, unappendaged. Stamens numerous.

Petals as many as sepals.

4. Branches without spines. Fruit dehiscent. Seeds few.

### 2 XYLOTHECA.

Branches spinous. Fruit indehiscent. Seeds numerous.

### 3 ONCOBA.

5. Petals 5 with scale-like appendages at base. Anthers opening at the top.

### 4 KIGGELARIA.

Petals without scales. Anthers opening lengthwise.

6. Stamens numerous, not in bundles. Fruit a berry.

### 5 SCOLOPIA.

Stamens, singly or in bundles, opposite the petals. Fruit a capsule.

7. Flowers dioecious.

### 6 TRIMERIA.

Flowers hermaphrodite.

8. Style 1. Stigma 1, capitate.

### 7 GERRARDINA.

Styles 2—6.

### 8 HOMALIUM.

9. Style 1. Fruit a capsule.

### 9 CASEARIA.

Styles 2—6. Fruit a berry.

### 10 DORYALIS.

1. **RAWSONIA** Harv. and Sond. "Nanga"

*lucida* Harv. & Sond. Small tree. Coastbelt.

**2. XYLOTHECA** Hochst.

1. *kraussiana* Hochst. Coastbelt. Common. "umNamnami."
2. *tettensis* (Klotsch) Gilg. Coastbelt.

**3. ONCOBA** Forsk.

- spinosa* Forsk. Coastbelt. Common.

**4. KIGGELARIA** L. "umFeyenkomo." "Munwe."

1. *africana* L. Coast to Drakensberg.
2. *dregeana* Turcz. Coast to Drakensberg. Common.  
"isiKali."

**5. SCOLOPIA** Schreb. "umQokolo." "umHlambahlala."

1. *eckloni* (Arn) Harv. All over. In bush.
2. *gerrardi* Harv. Coastbelt chiefly. Probably a variety of *eckloni*.
3. *mundii* Warb. All over, but chiefly upper districts.
4. *zeyheri* (Arn.) Harv. "Thorn Pear." Common in forest and Thorn veld.

**6. TRIMERIA** Harv. "iDlebelendhlovu."

1. *grandifolia* Hochst. Common in bush all over.
2. *trinervis* Harv. Shrub. Coast and Midlands.

**7. GERRARDINA** Oliv. "Zeti" or "Leti."

- foliosa* Oliv. Inanda. Murchison Flats and Zululand.

**8. HOMALIUM** Jacq.

1. *rufescens* Bth. Coastbelt.
2. *dentata* (Harv.)

**9. CASEARIA** Jacq. "umJuluka."

- junodi* Schinz. 'Nkandhla forest, 4-5,000 ft.

**10. DORYALIS** Arn and Mey. (incl. *Aberia* Hochst.)

1. *ramnoides* (Burch) Harv. Coast and Midlands. "umKokolo," "umNyegane."
2. *tristis* (Sond) Warb. Thorn veld.
3. *caffra* (Hk. and Harv.) Sim. Midlands and Drakensberg.
4. *celastroides* Sond. Coast and Midlands.
5. *lucida* Sim. Midlands, Zwartkop.

**FAMILY 101—PASSIFLORACEAE.**

Usually tendril bearing plants. Leaves alternate. Flowers regular. Sepals 4—6. Petals 4—6, free or 0. Receptacle usually produced into a corona. Stamens 4—10. Ovary superior, 1 celled with 3, rarely 4—5, parietal placentas, and numerous inverted ovules. Seeds arillate. Endosperm fleshy. 2 genera 3 species.

1. Flowers hermaphrodite. Corona triple.

**1 TRYPHOSTEMMA.**

Flowers usually unisexual. Corona simple, double or (in the Natal species) wanting.

**2 ADENIA.**

**1. TRYPHOSTEMMA** Harv.*sandersoni* Harv. Grassveld. All over.**2. ADENIA** Forsk. (including *Modecca* Lam. and *Ophiocaulon* Hk.f.)1. *digitata* (Harv.) Vryheid, Zululand.2. *gummifera* Harv. Coastbelt. "imFulwa."**FAMILY 102—ACHARIACEAE.**

Herbs or undershrubs. Leaves alternate, exstipulate. Flowers regular, monoecious. Sepals 3—5. Petals 3—5, united below. Stamens 3—5, affixed to corolla. Corona of 3—5 scales. Ovary superior, 1 celled, with 3—5 parietal placentas, bearing 2 or more inverted ovules each. Styles 3—10 cleft. Fruit a capsule. Seeds endospermic. 2 genera 2 species.

Stem twining. Leaves 5—7 lobed.

**1 CERATIOSICYOS.**

Above ground, stem wanting. Leaves undivided.

**2 GUTHRIEA.****1. CERATIOSICYOS** Nees.*eckloni* Nees. Midlands, in bush.**2. GUTHRIEA** Bolus.*capensis* Bolus. Drakensberg, 10,000 feet. Under rocks in damp places.**FAMILY 103—BEGONIACEAE.**

Herbs or undershrubs. Leaves alternate, usually oblique, stipulate. Flowers monoecious. Perianth simple of usually 2—5 free segments. Stamens numerous. Ovary inferior 2—6 celled, usually winged. Ovules many inverted. Styles 2—6. Fruit a capsule, rarely a berry. Seeds exendospermic. 1 genus 7 species.

**BEGONIA** L. (Mostly in bush.)1. *caffra* Meisn.2. *dregei* Ott and Dietr. Inanda, in bush.3. *geranioides* Hk.f. Midlands. Common in bush.4. *natalensis* Hk. Midlands. Common in bush5. *richardsiana* T. Moore.6. *suffruticosa* Meisn. var *gueinziana*. Inanda, in moist bush.7. *sutherlandi* Hk. Midlands.**FAMILY 104—CACTACEAE.**

Succulent plants, usually with jointed stems. Leaves usually scale-like, often deciduous. Flowers hermaphrodite. Perianth of 8 or more segments. Stamens numerous. Ovary inferior, 1 celled, with several parietal placentas. Ovules inverted. Style

1. Stigmas several. Fruit a berry. Seed endospermic. 2 genera  
4 species.

1. Plants without barbed spines. Slender straggler.

### 1 RHIPSALIS.

Plants with barbed spines at least on fruit. 2 OPUNTIA.

1. RHIPSALIS Gaertn. "uGebelewene."

*cassytha* Gaertn. Hanging from rocks and trees in Mid-lands.

2. OPUNTIA Haw. "Prickly Pear."

1. *monacantha* Haw. Introduced.

2. *tuna* Mill. Introduced.

3. *ficus-indica* Mill. Introduced.

## FAMILY 105—OLINIACEAE.

Shrubs or trees. Leaves opposite, entire, exstipulate. Flowers regular 4—5 merous. Calyx petaloid. Petals smaller than sepals. Fertile stamens 4—5 opposite petals. Ovary inferior 3—5 celled. Ovules 2—3 in each cell, inverted. Style 1. Stigma 1. Fruit a drupe. Seeds exendospermic. 1 genus 1 species.

OLINIA Thb. "inKunzi." "isiShoba." "inQutu."

1. *drakensbergensis* Hofmeyr MSS. Upper districts and Drakensberg.

## FAMILY 106—THYMELAEACEAE.

Herbs, undershrubs, shrubs or trees. Leaves entire, exstipulate. Flowers 4—5 merous. Sepals petaloid. Petals (or petal-like scales) present or absent. Stamens as many or twice as many as sepals. Ovary superior 1—5 celled. Ovules 1 in each cell. Receptacle usually forming a deep hollow "calyx tube." Style simple. Stigma entire. Fruit a drupe or nut. 8 genera 32 species.

1. Ovary 2 celled. Petals 0. Fruit a drupe. Trees or shrubs.

### 8 PEDDIEA.

Ovary 1 celled. 2.

2. Petals absent. 3.

Petals present. 5.

3. Hypogynous disc present, cupular, membranous. Shrub with leaves, usually  $2\frac{1}{2}$  by  $1\frac{1}{2}$  inches. 1 DAIS.

Hypogynous disc not present. Heathlike shrubs. 4.

4. Stamens included. Tube slender cylindrical.

### 2 ARTHROSOLEN.

Stamens exserted. Tube urceolate. 3 PASSERINA.

5. Stamens as many as calyx lobes. 4 STRUTHIOLA.

Stamens twice as many as calyx lobes. 6.



6. Flowers in ebracteate terminal fascicles.

**7 ENGLERODAPHNE.**

Flowers in bracteate heads or spikes rarely axillary. 7.

7. Flowers 4 merous.

**5 GNIDIA.**

Flowers 5 merous.

**6 LASIOSIPHON.**

**1. DAIS L.**

*cotinifolia* L. Common in Midlands.

**2. ARTHROSOLEN C.A. Meyer. (Mostly grassveld.)**

1. *calocephalus* C.A.M. Coast and Midlands.

2. *gymnostachys* C.A.M. Midlands.

3. *variabilis* C. H. Wright. Midlands and upper districts.

4. *phaeotrichus* C. H. Wright. Midlands and Drakensberg.

**3. PASSERINA L.**

1. *filiformis* L. Midlands and Drakensberg.

2. *ericoides* L. Coast to Drakensberg.

3. *rigida* Wikstr. Coast. Sand dunes.

*rigida* var *comosa*. Meisn. Sea shore.

4. *corymbosa* Eckl. Mooi River, 4,000 ft.

5. *eriophora* Gandog. Near Durban.

**4. STRUTHIOLA L.**

1. *congesta* C. H. Wright. Damp valley, near Murchison.

2. *parviflora* Bartl. Mont Aux Sources.

**5. GNIDIA L. (Mostly in grassveld.)**

1. *microcephala* Meisn. Midlands.

2. *fastigiata* Rendle. Tabamhlope.

3. *polystachya* Berg. Mont Aux Sources.

4. *woodii* C. H. Wright. Midlands.

5. *stellatifolia* Gandog. Pinetown.

6. *nodiflora* Meisn. Coast and Midlands.

7. *ovalifolia* Meisn. Coast and Midlands. "uHlosa."

**6. LASIOSIPHON Fresen. Mostly in grassveld.**

1. *splendens* Endl. Coast and Midlands.

2. *macropetalus* Meisn. Coast and Midlands.

3. *dregeanus* Endl. Durban.

4. *linifolius* Decne. Abundant in Midland grassveld.

5. *polyanthus* Gilg. Coast to Drakensberg.

6. *anthylloides* Meisn. Coast to Midlands. Common.  
"inDolo."

7. *meisnerianus* Endl. Coast and Midlands. Common.  
"isiDikili."

8. *triplinervis* Decne. Midlands and Mts.

9. *caffer* Meisn. Midlands and Drakensberg.

10. *kraussii* Meisn. Midlands. Common. "umVuzane."

**7. ENGLERODAPHNE Gilg.**

*leiosiphon* Gilg. Maritzburg.

**8. PEDDIEA** Harv. "isiFufufu."

1. **africana** Harv. Common in all bush.
2. **sp.** (unnamed?) Coastbelt.

**FAMILY 107—LYTHRACEAE.**

Trees, shrubs or herbs. Leaves entire, usually stipulate. Flowers hermaphrodite. Sepals 3—8 valvate. Petals 3—8 or 0. Stamens usually inserted below petals. Anthers dorsifixed. Ovary superior, completely or incompletely 2—6 celled. Ovules numerous, inverted. Raphe ventral. Style 1 or 0. Stigmas 1 or 2. Fruit dry. Seed exendospermic. 2 genera 9 species.

Stamens adnate to base of petals. Ovules in 1 row. Small tree.

**2 RHYNOCALYX.**

Stamens inserted below petals or petals absent. Ovules in 2 or more rows. Herbs, undershrubs, or low shrubs.

**1 NESAEA.****1. NESAEA** Comm.

1. **floribunda** Sond.
2. **kuntzei** Koehne. Ladysmith.
3. **rigidula** Koehne. Doubtful.
4. **sagittifolia** Koehne. Upper districts. Common.
5. **schinzii** Koehne. Estcourt.
6. **tolypobotrys** Koehne. Near Durban.
7. **woodii** Koehne. Fort Yolland. Zululand.
8. **rivularis** (W. & E.) Koehne. In wet places, Natal and Zululand.

**2. RHYNOCALYX** Oliv. (Shrub.)

**lawsonioides** Oliv. Alfred County. Murchison.

**FAMILY 108—LECYTHIDACEAE.**

Trees or shrubs. Leaves simple, alternate, exstipulate. Flowers hermaphrodite. Sepals 2—5. Petals 4—6. Stamens numerous, united at base. Disc within stamens. Ovary inferior, 2—20 celled. Ovules 2 or more in each cell. Style 1. Fruit indehiscent. Seeds exendospermic. 1 genus 1 species.

**BARRINGTONIA** Forst. (Fruit 1 seeded.) "iBoqo."

**racemosa** Roxb. Often dominant in wet sandy soil, where water is not brackish, near sea shore.

**FAMILY 109—RHIZOPHORACEAE.**

Trees or shrubs. Leaves undivided. Flowers regular hermaphrodite or polygamous. Sepals valvate. Petals free. Stamens twice as many as petals or more, perigynous or epigynous. Ovary superior or inferior, completely or incompletely 2—6 celled.

Ovules 1—2 in each cell, pendulous inverted. Seeds often germinating on the attached fruit. 4 genera 6 species.

1. Ovary inferior or half inferior. Seeds germinating on the trees. Growing in brackish water. 2.

Ovary superior or nearly so. Ovules with appendages.

Leaves opposite. Growing away from sea. 3.

2. Ovary inferior. Receptacle deeply concave. Calyx crowning the fruit. 2 **BRUGUIERA**.

Ovary half inferior. Receptacle slightly concave. Calyx at base of fruit. 3 **RHIZOPHORA**.

3. Disc distinctly 8—15 lobed. Stigma entire.

4 **DACTYLOPETALUM**.

Disc not distinctly lobed. Stigma 2—4 lobed.

3 **WEIHEA**.

1. **RHIZOPHORA** L. "umHluma."

*mucronata* Lam. Mangrove on river lagoons, near sea.

2. **BRUGUIERA** Lam.

*gymnorhiza* Lam. Mangrove on river lagoons, near sea.

3. **WEIHEA** Spreng.

1. *gerrardi* Schinz. In bush, Inanda. "umKatana." "isi-Tutshana."

2. *madagascarensis* Spreng. Coast and Midlands.

3. *natalica* V. Brehm. Tree 30-45 ft. Alexandra County.

4. **DACTYLOPETALUM** Bth. (*Cassipourea* Aubl.)

"umNuka."

*verticillatum* (N.E.Br.) Coast and Midland bush.

## FAMILY 110—COMBRETACEAE.

Trees, shrubs or climbers. Leaves entire, exstipulate. Flowers regular or nearly so. Sepals 4—6. Petals 4—6, free or 0. Stamens usually 8—12. Anthers versatile. Ovary inferior 1 celled. Ovules 2—3, rarely 4—6, pendulous, inverted. Style 1. Fruit a 1 seeded drupe or nut, rarely dehiscent, usually winged. Seeds exendospermic. 3 genera 11 species.

1. Petals 0. Leaves alternate, rarely almost opposite.

3 **TERMINALIA**.

Petals 4—5. Leaves (at least the upper) opposite. 2.

2. Calyx tube elongate, filiform. Climbing shrub.

2 **QUISQUALIS**.

Calyx tube not elongate filiform. Trees. 1 **COMBRETUM**.

1. **COMBRETUM** L. "umBondi." "umDubu."

1. *apiculatum* Sond. Upper Tugela.

2. *bracteosum* Engl. and Diels. Coastbelt only. Near water.

3. *erythrophyllum* Sond. Coast and Midlands.

4. *glutinosum* Guill and Perr. Midlands. Tree veld.

5. *gueinzii* Sond. Coastbelt creeper.
6. *junodii* Dummer.
7. *kraussii* Hochst. Common all over in bush and tree veld.
8. *salicifolium* E.M. Midlands. Common, near water.
9. *suluense* Engl and Diels.
2. **QUISQUALIS** L.  
*parviflora* Gerr. Umhloti, 100 ft.
3. **TERMINALIA** L.  
*sericea* Burch. North Eastern Zululand. **Bush veld.**

## FAMILY 111—MYRTACEAE.

Trees or shrubs. Leaves simple, gland-dotted, exstipulate. Flowers regular. Sepals 4—5. Petals 4—5, free or united into a hood. Stamens usually many. Ovary interior or half inferior, rarely superior 2—5 celled. Ovules few or many, inverted. Style 1. Seeds exendospermic. 2 genera 11 species.

1. Fruit dry. Ovary superior. Stamens 5—8. **1 HETEROPYXIS**  
Fruit a berry. Ovary inferior or half inferior. Stamens numerous. **2 EUGENIA.**

### 1. **HETEROPYXIS** Harv.

*natalensis* Harv. Coast bush.

### 2. **EUGENIA** L.

1. *albanensis*. Shrub or undershrub. Grassveld. Coast and Midlands. Common.
2. *capensis* Harv. Sand dune bush. Common.
3. *cordata* Laws. "umDoni." Dominant in hygrophilous coastbelt bush and in Zululand. Also in tree veld and in frost-free localities in Midlands.
4. *gueinzii* Sond.
5. *natalitia* Sond. Midlands.  
*natalitia* var *medleyana*. Engl. and V. Brehm. Coastbelt.
6. *zeyheri* Harv. Coast and Midlands. Common tree. "isi-Dunwana."
8. *rudatisii* Engl. and V. Brehm. Fairfield, 3,500 ft.
9. *owariensis* P. Beauv. Zululand. Large tree. "um-Hluluozi."
10. *woodii* Dummer. Coastbelt.

## FAMILY 112—MELASTOMACEAE.

Herbs, shrubs or trees. Leaves opposite, simple, usually with 3—11 longitudinal nerves, exstipulate. Flowers regular or nearly so. Petals free. Stamens as many or twice as many as petals. Anthers usually with enlarged connective, opening at the top. Ovary usually inferior or half inferior. Ovules numerous. Style



1. Seeds exendospermic. 2 genera 5 species.

1. Ovary 1 celled. Fruit a berry. Free central placenta.

**1 MEMECYLON.**

Ovary more than 1 celled. Fruit capsular. **2 DISSOTIS.**

**1. MEMECYLON L.**

1. **australe** Gilg. and Schltr. Fairfield, Alexandra County, 2-3,000 ft.

2. **capense** E. & Z. Near Umzimkulu.

**2. DISSOTIS Bth.** "umFeyankala." "umFeyesele."

1. **princeps** Triana. Wet places. Coast and Midlands. Common.

2. **incana** Triana. Wet places, coast and Midlands. Common.

3. **phaeotricha** Triana. Wet places. Coast and Midlands.

**FAMILY 113—OENOTHERACEAE.**

Shrubs or herbs. Flowers 2—6 merous. Sepals valvate in the bud. Petals free, rarely (*Ludwigia*) absent. Stamens as many or twice as many as sepals. Ovary inferior or half inferior, 2—6 celled. Ovules inverted. Style 1. Seeds exendospermic. 5 genera 11 species.

1. Ovary half inferior; 2 celled with 1 pendulous ovule in each cell. Fruit woody, indehiscent. Floating herbs.

**1 TRAPA.**

Ovary inferior, 2 celled with 1 ascending ovule in each cell or 3—6 celled with numerous ovules. 2.

2. Flowers with bracteoles, regular. Calyx persistent. 3.

Flowers without bracteoles, 4 merous. Calyx deciduous. 4.

3. Stamens 3—6. **2 LUDWIGIA.**

Stamens 8—12. **3 JUSSIEUA.**

4. Calyx tube short, bell-shaped. Stamens in 2 rows. Seeds with a tuft of hairs. **4 EPILOBIUM.**

Calyx tube long. Stamens subequal. Seeds without a tuft of hairs. **5 OENOTHERA.**

**1. TRAPA L.**

**bispinosa** Roxb. Floating in streams.

**2. LUDWIGIA L.**

1. **jussieuoides** Desr. Zululand.

2. **palustris** Ell. Midland vleis.

**3. JUSSIEUA L.**

1. **repens** L. Coast and Midlands. In vleis and pools.

2. **suffruticosa** L. Coastbelt and Zululand.  
**suffruticosa** var. **angustifolia** Lam.

**4. EPILOBIUM L.**

1. **capense** Buch. Moist places. Coast and Midlands.

- 2. *flavescens* E.M. Midlands and Drakensberg.
- 3. *hirsutum* L. Moist places. Midlands and Drakensberg.
- 4. *tetragonum* L. Noodsberg and Drakensberg.
- 5. *schinzii* Levl.

5. **OENOTHERA** Spach.

- 1. *biennis* L. Imported weed.
- 2. *rosea* Ait. Midlands. Common.

## FAMILY 114—HALORRHAGACEAE.

Herbs or undershrubs. Leaves exstipulate. Flowers small, regular, 2—4 merous. Petals free or 0. Stamens 1—8. Ovary inferior 1 celled with 1 or 4 ovules, or 4 celled with 1 ovule in each cell. Ovules pendulous, inverted. Styles or stigmas 2—4. Fruit a nut, drupe or schizocarp. Seeds endospermic. 3 genera 3 species.

- 1. Ovary 1 celled with 1 ovule. Leaves large-radical.

**1 GUNNERA.**

Ovary 1 celled with 4 ovules or 4 celled.

2.

- 2. Ovary 1 celled, sometimes incompletely 4 celled.

Leaves undivided. Terrestrial.

**2 LAUREMBERGIA.**

Ovary 4 celled. Leaves divided. Aquatic.

**3 MYRIOPHYLLUM.**

- 1. **GUNNERA** L. "uGobo."

*perpensa* L. In vleis. Common. Sometimes dominant.  
Coast to Drakensberg.

- 2. **LAUREMBERGIA** Berg. (*Serpicula* L.)

*repens* Berg. Shores of Natal Bay. Common.

- 3. **MYRIOPHYLLUM** L.

*spicatum* L. Mooi River, 4,000 ft.

## FAMILY 115—ARALIACEAE.

Trees or shrubs. Leaves usually stipulate. Flowers 4—16, usually 5 merous. Petals free or united into a cap, valvate in bud. Stamens as many as petals or more. Anthers versatile. Ovary inferior or half inferior, crowned by a disc, 2 or more celled. Ovule 1 in each cell, pendulous, inverted. Raphe ventral. Fruit indehiscent. Seeds endospermic. 2 genera 7 species.  
Fruit roundish. Pedicels not jointed with flowers.

**1 CUSSONIA.**

Fruit laterally compressed, oblong. Pedicels jointed with flowers.

**2 PANAX** L.

- 1. **CUSSONIA** Thb. "umSenge."

1. *chartacea* Schinz. Umbilo.

2. *kraussii* Hochst.

3. *natalensis* Sond. Inanda.

4. *paniculata* E. & Z. Drakensberg and upper districts.
  5. *spicata* Thb. Common all over. In bush and Thorn veld. Often a pioneer in the latter.
  6. *umbellifera* Sond. Chiefly coastbelt. Common in tree veld. "umKisiko." "umSengembusi."
- 2. PANAX L. (Polyscias Forst.)**  
*gerrardi* Harv. Midlands. "umXenga." "umQwenge."

## FAMILY 116—UMBELLIFERAE.

Mostly herbs, rarely trees (**Heteromorpha**). Leaves alternate, usually with a sheathing stalk. Flowers in umbels or (**Alepidea**) in heads, rarely in spikes. Flowers usually regular, hermaphrodite or the outer irregular. Calyx small or 0. Petals 5, free. Stamens 5, alternating with petals. Ovary inferior, 2 celled. Ovules 1 in each cell, pendulous, inverted. Raphe ventral. Styles 2, free, arising from a 2-lobed disc. Fruit dry separating into 2 mericarps, attached to a carpophore. Pericarp ribbed and traversed by oil channels between main ribs, which enclose vascular bundles. Seeds with horny endosperm. 14 genera 35 species.

1. Flowers in simple or irregularly compound umbels, usually few to the umbel or in heads. 2.

Flowers in regularly compound umbels. Oil channels between the ridges of the fruit. 4.

2. Calyx lobes obsolete. Fruit laterally compressed. Leaves orbicular or cordate. **1 HYDROCOTYLE.**

Calyx lobes not obsolete. Fruits slightly or not compressed. 3.

3. Flowers in capitula, sessile. **2 ALEPIDEA.**

Flowers all, or the male ones pedicelled. Umbels arranged in cymes. **3 SANICULA.**

4. Seeds very concave or marked with a furrow on the inner face (seen in cross-section of the ripe fruit). 5.

Seeds flat, slightly concave or convex on the inner face. 6.

5. Leaves undivided, entire. Petals yellow or greenish.

### 5 BUPLEURUM.

Leaves, at least the lower ones, dissected. **4 CONIUM.**

6. Mericarps much compressed from front to back. Marginal ribs much more prominent than dorsal and more or less winged. **12 PEUCEDANUM.**

Mericarps slightly or not compressed. Marginal ribs similar to dorsal. 7.

7. Fruit not compressed laterally. Commissure (plane of junction of mericarps), broad. 8.

Fruit compressed laterally. Commissure narrowed. 10.

8. Ribs of fruit keel or ridge-like. **13 SESELI.**

Ribs of fruit wing-like. 9.

9. Marginal wings of fruit thin. Dorsal wings corky or partly filiform. Mericarps usually unequal.

**11 ANNESORRHIZA.**

Marginal wings thick. All wings equal, membranous or spongy. Mericarps equal. Leaves 2—3 times pinnately dissected.

**(Selinum) 14 CNIDIUM.**

10. Leaves simple, entire, usually sessile. **5 BUPLEURUM.**

Leaves, at least some of them, toothed to dissected or compound. 11.

11. Tree with mericarps, one 2-winged, the other 3-winged.

**6 HETEROMORPHA.**

Mericarps with ribs filiform or keeled, but not winged. 12.

12. Oil channels 1 under each rib, none in the furrows. Calyx toothed. Petals white with a long inflexed point.

**7 LICHTENSTEINIA.**

Oil channels in the furrows. Sometimes also under ribs. 13.

13. Oil channels solitary in each furrow, large. Ribs very prominent. Petals greenish-white. **8 APIUM.**

Oil channels numerous, narrow. Ribs filiform. 14.

14. Calyx toothed. Involucre and involucels large, persistent.

**9 SIUM.**

Calyx not toothed. Involucre and involucels usually wanting.

**10 PIMPINELLA.**

**1. HYDROCOTYLE** Tourn.

1. *americana* L. var. *monticola* Hk.f. Inanda.
2. *asiatica* L. Common all over.  
*asiatica* var. *repanda*. Durban.
3. *umbellata* L. Near Durban.
4. *centella* Cham. and Sch. Izingolweni.
5. *sp.* Umzinyati, Ungoya.

**2. ALEPIDEA** La Roche.

1. *amatymbica* E. & Z. Common all over.
2. *baurii* O. Kuntze. Midlands and Mountains.
3. *ciliaris* La Roche. Nottingham Road and Weenen.
4. *concinna* Dummer. Inanda.
5. *jacobsziae* Dummer. Weenen, 4-5,000 ft.
6. *longifolia* E.M. Drakensberg and Midlands.  
*longifolia* var. *angusta* Dummer. Drakensberg and Midlands.
7. *natalensis* Wood & Evans. Mt. Gilboa, 2-4,000 ft.
8. *setifera* N.E.Br. Greytown, Brakwaal.
9. *thodei* Dummer. Mont Aux Sources.
10. *tysonii* Dummer. Kokstad.
11. *wyliei* Dummer. Zululand.

**3. SANICULA** L.

- europaea* L. Common in bush. Midlands.



4. **CONIUM** L.  
    *maculatum* L. Midlands.
5. **BUPLEURUM** Tourn.  
    *mundii* Ch. & Sch. Midlands and Drakensberg. Common.
6. **HETEROMORPHA** Cham. & Schlech. "umBangandhlala."  
    *arborescens* Ch. & Sch. Coast, Midlands, and Drakensberg.  
    Common.
7. **LICHTENSTEINIA** Cham. & Schlechtd. "inTlashane."  
    *pyrethrifolia* Cham & Sch. Common all over.
8. **APIUM** L.  
    *graveolens* L. Shores of Natal Bay.
9. **SIUM** L.  
    *thunbergii* DC. In wet places. Common all over.
10. **PIMPINELLA** L.  
    1. *caffra* D. Dietr. Midlands.  
    2. *reenensis* Reching. Van Reenen.
11. **ANNESORRHIZA** Cham. & Schlechtd.  
    *triternatum* (E. & Z.) Lower Tugela.
12. **PEUCEDANUM** L.  
    1. *caffrum* Phillips. (*Annesorhiza caffra* B. & H.) Inanda.  
    2. *capense* Sond. Common.  
    3. *connatum* E. M. Coastbelt. Grassveld and near sea.  
    4. *araliaceum* Bth. and Hk. Ellesmere. 2,000 ft.  
    5. *wilmsianum* Wolff. Alexandra County. 1,800 ft.  
    6. *reenensis* Reching. Van Reenen, 5-6,000 ft.
13. **SESELI** L.  
    *natalensis* Sond. Midlands. Common.
14. **CNIDIUM** Cuss. (*Selinum* L.)  
    *suffruticosum* Ch. & Sch. Isipingo.

## FAMILY 117—CORNACEAE.

Trees or shrubs. Leaves simple, exstipulate. Flowers regular. Petals 4—5, free or cohering at base. Stamens 4—5. Ovary inferior, 2—4 celled with 1 pendulous ovule in each cell. Raphe dorsal. Fruit a drupe. Seeds endospermic. 2 genera 2 species.

Ovary 4 celled. Flowers hermaphrodite.

**2 CURTISIA.**

Ovary 2—3 celled. Flowers unisexual.

**1 CORNUS.**

### 1. **CORNUS** L.

*capitata* Wall. Nottingham Road. 4,800 ft.

### 2. **CURTISIA** Ait. "Assegai." "iZingati." "umVelwayo." "um-Selwayo." "umPangi." "umPai." "umLalume." "maKunda." "iCibo."

*faginea* Ait. In Midland and Mountain bush.

**METACHLAMYPDEAE. (SYMPETALAE).****FAMILY 118—ERICACEAE.**

Undershrubs, shrubs or trees. Leaves simple, narrow. Flowers regular or nearly so, hermaphrodite. Calyx 4—5 cleft, persistent. Petals united below. Stamens 3—15, usually twice as many as petals, free from corolla or nearly so. Anthers usually opening at top. Ovary superior, 1—5 celled. Ovules axile or solitary, inverted or almost so. Style 1. Seeds endospermic. 2 genera 24 species.

Bracts 0. Calyx lobes unequal, lowest larger. **1 PHILLIPPIA.**

Bracts 3, rarely 1 or 0. Calyx lobes equal. **2 ERICA.**

**1. PHILLIPPIA** Klotzsch.

*evansii* N.E.Br. Ulundi, 5-6,000 ft.

**2. ERICA** L.

1. *algida* Bolus. Drakensberg, 8-10,000 ft., near streams.

2. *alopecurus* Harv. Midlands and Drakensberg.

3. *aspalathifolia* Bolus. Inanda, 1,800 ft.

4. *caffra* L. Umbilo Falls, 1,000 ft.

5. *cafferorum* Bolus. Drakensberg, on cliffs.

6. *cerinthoides* L. Midlands and Drakensberg.

7. *cooperi* Bolus. Noodsberg and upper districts. Common.

8. *cubica* L. Inanda. Pinetown. Coastbelt.

9. *drakensbergensis* Guth & Bolus. Midlands and Drakensberg.

10. *frigida* Bolus. Makwakqa 6-7,000 ft.

11. *hispidula* L.

12. *lasiocarpa* Guth and Bolus. Van Reenen, 7,000 ft.

13. *natalitia* Bolus. Midlands and Drakensberg.

14. *schlechteri* Bolus. Mooi River, 4,500 ft.

16. *sitiens* Kl. Drakensberg.

17. *solandra* Andr. Drakensberg.

18. *trichoclada* Guth. and Bolus. Liddesdale, 4-5,000 ft. Poléla.

20. *wyliei* Bolus. Drakensberg, 9-10,000 ft.

21. *flanagani* Bol. Drakensberg, 8,000 ft.

22. *reensis* A. Zahlbr. Van Reenen.

23. *ebracteata* Bolus. Mont Aux Sources.

**FAMILY 119—MYRSINACEAE.**

Trees, shrubs, or undershrubs. Leaves alternate, undivided, gland dotted, exstipulate (very rarely opposite). Flowers regular 4—5, rarely 6—7—merous. Petals free or united below. Stamens as many as, and opposite petals, on the corolla. Ovary superior or (*Maesa*), half inferior, 1 celled with free central placenta. Ovules

usually numerous. Style 1 or 0. Fruit a berry, drupe or nut. Seeds 1 or many endospermic. 4 genera 7 species.

1. Ovary inferior or half inferior. Fruit many seeded.

**1 MAESA.**

- , Ovary superior. Fruit 1 seeded.

2.

2. Petals free or nearly so.

**2 EMBELIA.**

Petals united.

3.

3. Filaments wanting. Style wanting.

**3 RAPANEA.**

Filaments present more or less united. Style present.

**4 MYRSINE.**

1. **MAESA.** Forsk. "uPopopo." "umPongaponga." "isiDende." "uMaguqu." "inHlavubele."

1. *alnifolia* Harv. Coast to Drakensberg.

2. *rufescens* A.DC. Doubtfully distinct from next. Coast and Midlands.

3. *lanceolata* Forsk. Coast and Midlands.

4. *angolensis* Gilg. Drakensberg.

2. **EMBELIA** Burm. "iBinini."

*ruminata* Mez. (*kraussii* Harv.) Coast and Midlands.

Rambling shrub.

3. **RAPANEA** Aubl. (Under **Myrsine** L.) "isiGwane wehlati." "isiQulabahloti."

*melanophloeos* (L.) Mez. Tree. Common. Coast to Drakensberg.

4. **MYRSINE** L. "umHlaba-i-boge."

*africana* L. Important pioneer shrub in forest areas. Midlands and Drakensberg.

## FAMILY 120—PRIMULACEAE.

Herbs or undershrubs. Leaves simple, exstipulate. Flowers 3—7, usually 5 merous, hermaphrodite. Petals usually united below. Fertile stamens as many as, and opposite petals. Ovary usually superior, 1 celled, with free central placentas. Ovules several to many. Style 1. Stigma 1. Fruit a capsule. Endosperm fleshy. 3 genera 6 species.

1. Ovary inferior to half inferior. Stamens alternating with staminodes. Capsule 5 valved.

**3 SAMOLUS.**

Ovary superior. No staminodes.

2.

2. Stamens hairy. Capsule circumscissile.

**2 ANAGALLIS.**

Stamens glabrous. Capsule 5—10 valved.

**1 LYSIMACHIA.**

1. **LYSIMACHIA.** L.

*woodii* Schltr. In a damp valley, near Van Reenen.

2. **ANAGALLIS** L.

1. *arvensis* L. Annual weed.

*arvensis* var *coerulea*. Common.

2. **huttoni** Harv. Maritzburg.

**huttoni** var. **nummularia** Harv. Zululand.

3. **pumila** var. **natalensis** Knuth. Coastbelt to Inanda.

### 3. **SAMOLUS** L.

1. **valerandi** L. Coastbelt to Inanda.

2. **porosus** Thb. Common along seashore.

## FAMILY 121—PLUMBAGINACEAE.

Herbs, undershrubs or shrubs (climbing). Leaves simple, alternate or radical. Flowers 5 merous, hermaphrodite. Petals united. Stamens as many as and opposite petals. Ovary superior 1 celled. Ovule 1 pendulous from an erect basal funicle. Styles or style branches 5. Endosperm mealy. 1 genus 2 species.

**PLUMBAGO** L. "Matshletshshele."

1. **capensis** Thb. Coast and Midlands and Thorn veld.  
Common.

2. **zeylanica** L. Weenen County. Doubtful.

## FAMILY 122—SAPOTACEAE.

Trees or shrubs usually with milky juice. Leaves alternate, entire, exstipulate. Flowers 4—8 merous, axillary, regular, hermaphrodite. Petals united below. Stamens on corolla as many as and opposite petals or more. Ovary superior, 2—many celled. Ovules 1 in each cell. Style 1. Fruit a berry. Endosperm little or none. 3 genera 14 species.

1. **Staminodes** 0.

**1 CHRYSOPHYLLUM.**

Stamens alternating with staminodes.

2.

2. **Calyx** lobes 5, rarely 6, in 1 series. Petals without appendages.

**2 SIDEROXYLON.**

**Calyx** lobes 6—8 in 2 series. Petals with 2—1 minute dorsal appendages.

**3 MIMUSOPS.**

### 1. **CHRYSOPHYLLUM** L.

1. **natalense** Sond. Coastbelt and Lower Midlands. Common. Tree. "Tungagazane."

2. **viridifolium** Wood & Franks. Berea, Durban. Tree.

2. **SIDEROXYLON** L. "umGqwashu." "umHlala." "umNweba."  
**inermis** L. Coast and Midland forests.

### 3. **MIMUSOPS** L.

1. **discolor** Hartog. Coastbelt. Common.

2. **natalensis** Engl. Inanda. Coastbelt.

3. **woodii** Engl. Inanda.

4. **caffra** E.M. Dominant in much of the coast sand dune bush. "umHayihayi" or "umYakayi."

5. **marginata** N.E.Br. Coastbelt.



6. *obovata* Sond. Coastbelt and Midlands. "Masetola."  
"isiPandane."
7. *oleifolia* N.E.Br. Tugela Valley. Thorn veld.
8. *dispar* N.E.Br. Midland Thorn veld.
9. *concolor* Harv. Tugela Valley. Thorn veld.
10. *rudatisii* Engl. and Krause. Fairfield, Alexandra County.
11. *schinzii* Engl.

### FAMILY 123—EBENACEAE.

Trees or shrubs. Leaves entire, exstipulate. Flowers axillary or lateral, regular, hermaphrodite or unisexual, 3—8 merous. Petals united below. Stamens as many as and opposite petals or more, inserted at base of corolla. Filaments free or in bundles. Ovary superior 2—16 celled. Ovules 1—2 in each cell, pendulous, inverted. Styles 2—8, free or united at base. Seeds endospermic. 3 genera 20 species.

1. Flowers hermaphrodite, rarely sub-dioecious, 4—8 merous.  
Calyx increasing in size with age. Stamens usually 10 in one row. **1 ROYENA.**

Flowers normally dioecious. Calyx not accrescent. 2.

2. Flowers 4—7 merous. Stamens 8—30, usually 12—30. **2 EUCLEA.**

Flowers 3 merous. Stamens usually 3—9. **3 MABA.**

#### 1. ROYENA L.

1. *lucida* L. Midlands. Common. "umKaza." "umTima-tane." "umTenatene." "Manzimane."
2. *cordata* E.M. Coast to Drakensberg.
3. *scabrida* Harv. Grassy plains in Tugela Valley.
4. *galpini* Hiern. Coastbelt and Zululand.
5. *villosa* L. Coastbelt and Midlands. Common. "um-Dodennyama." "umQatuva." "umNqandane." "Wes-empisi."
6. *hirsuta* L. Midlands and Drakensberg.
7. *pallens* Thb. Thorn veld and High veld. Common.
8. *nitens* Harv. Zululand.
9. *simii* O. Kuntze. Tugela Valley.
10. *guerkei* O. Kuntze. Charlestown, 6,000 ft.
11. *parviflora* Hiern. Zululand.
12. *glandulosa* Hiern. Tugela Valley.

#### 2. EUCLEA Murr. "umGwali." "iDungamusi."

1. *guerkei* Hiern. Between Maritzburg and Greytown.  
Doubtful.
2. *lanceolata* E.M. Coast and Midlands. "umTshapisana."
3. *ovata* Burch.
4. *multiflora* Hiern. Coastbelt.
5. *natalensis* A.D.C. Coast to Drakensberg. "inKaza."

6. *daphnoides* Hiern. Thorn veld. Midlands.  
 7. *undulata* E.M. Thorn veld. "Gwanxe."  
 3. **MABA** Forst. "Tshikivane." "Masinda."  
*natalensis* Harv. Coastbelt bush.

## FAMILY 124—OLEACEAE.

Trees or shrubs, sometimes climbing. Leaves exstipulate, usually opposite. Flowers regular, mostly hermaphrodite. Petals united. Stamens 2 epipetalous. Ovary superior, 2 celled. Style simple. Ovules 2 in each cell, rarely 1 or 4—8. Fruit a berry, drupe or capsule. Seeds usually exendospermic. 4 genera 17 species.

1. Tree. Corolla tube short, 4 lobed. Fruit a drupe. **4 OLEA.**  
 Shrubs or climbers. Corolla tube with 5 to many lobes or teeth. **2.**  
 2. Small undershrub. Corolla funnel-shaped. Fruit of 2 globose capsules splitting across. **3 MENODORA.**  
 Shrubs or climbers. Corolla salver-shaped. **3.**  
 3. Stamens included. Fruit a twin berry. **1 JASMINUM.**  
 Stamens exserted. Fruit a woody capsule. **2 SCHREBERA.**

### 1. JASMINUM L.

1. *glaucum* Ait. Near Durban.  
 2. *multipartitum* Hochst. Thorn veld, coast, and Midlands.  
 Common. "isAndhla-ka-inkosikazi."  
 3. *gerrardi* Harv. Thorn veld.  
 4. *streptopus* E.M. Coast and Midlands.  
 5. *stenolobum* Rolfe. Tugela Valley.  
 6. *angulare* Vahl. Midlands and Drakensberg.  
 7. *wyliei* N.E.Br. 'Nkandhla, 4-5,000 ft.

### 2. SCHREBERA Roxb.

1. *saundersiae* Harv. Coastbelt. "umGwenyahangula."  
 2. *obliquifolia* Gilg. Tongaat.

### 3. MENODORA Humb & Bonpl.

- africana* Hk. Tugela River, Bushman's River, and Zululand.

### 4. OLEA L. (Trees). "umQuma." "umHlebe."

1. *foveolata* E.M. Midlands. Common. "umQumaswele."  
 2. *verrucosa* Link. Coast to Drakensberg. "umSityane."  
 "umHlwati." "umNqumo."  
 3. *capensis* L. Ngoya, Zululand, and coastbelt sand dunes.  
 4. *laurifolia* Lam. "Black Ironwood." Dominant or subdominant in Midland forests. "Mutshine." "umZimane." "Gqanse"  
 5. *enervis* Harv. Buffalo River.  
 6. *woodiana* Knobl. Coastbelt and Tugela Valley.

## FAMILY 125—LOGANIACEAE.

Trees or shrubs. Leaves opposite or whorled entire (rarely toothed or lobed) stipulate. (Stipules often reduced to an interpetiolar line or ridge). Calyx lobes 4—5. Petals usually 4—5 (rarely 6—16), united below. Stamens usually 4—5, alternating with petals, epipetalous. Ovary superior, usually 2 celled, rarely 4 celled, with 2 or more inverted ovules in each cell. Style simple or 4 cleft. Seeds endospermic. 5 genera 15 species.

1. Fruit baccate, indehiscent. Glandular hairs absent.

### 5 STRYCHNOS.

Fruit a septicidal, 2 valved capsule. Glandular hairs present.

2.

2. Anther halves cohering above, divergent below. Style long. Flowers in terminal panicles. Tips of glandular hairs several celled.

### 2 NUXIA.

Anther halves separate. Style short or, if long, then flowers in racemes. Tips of glandular hairs 2 celled.

3.

3. Flowers racemose. Leaves sessile, 1 nerved.

### 1 GOMPHOSTIGMA.

Flowers cymose. Leaves petioled, penninerved.

4.

4. Anthers exserted. Calyx deeply lobed. 3 CHILIANTHUS.

Anthers included. Calyx shortly lobed. 4 BUDDLEIA.

### 1. GOMPHOSTIGMA Turcz.

*scoparioides* Turcz. Upper districts and Drakensberg. Common, near water.

### 2. NUXIA Lam.

1. *floribunda* Bth. Coast and Midlands. Frequent.

"Tambo."

2. *dentata* R.Br. Coastbelt river valleys, 3-500 feet.

3. *congesta* R.Br. var *emarginata* Prain. Coast and Midlands. "umKobese."

*congesta* var *tomentosa* Cummins. Midlands.

### 3. CHILIANTHUS Burch. "uTshetshan." "iSumimbuzi."

1. *arboreus* A.DC. Coastbelt and river valleys. "umGeba."

2. *corrugatus* A.DC. Riet Vlei.

3. *dysophyllus* Bth. Coast and Midlands. Common.

### 4. BUDDLEIA L. "iLotjane."

1. *salvifolia* Lam. Common around bush, all over.

2. *auriculata* Bth, var *euryifolia* Prain. Tugela River and near Kokstad.

3. *pulchella* N.E.Br. Midlands. Common. "umNgane."

### 5. STRYCHNOS L. Trees. "umKangala." "umBanda." um-Kwakwa." "umKuhlu."

1. *atherstonei* Harv. Coastbelt scrub. Local.

2. *henningsii* Gilg. Coast and Midlands. Common. "um-Qaloti." "umNonono."

3. **gerrardi** N.E.Br. Coastbelt scrub. "umGulugulu."
4. **spinosa** Lam. Coast and Midlands. Locally frequent.  
"umHlala."
5. **dyssophila** Bth. Tugela.

## FAMILY 126—GENTIANACEAE.

Herbs or undershrubs, rarely shrubs, nearly always glabrous. Leaves simple. Flowers 3—8, usually 4—6 merous, regular hermaphrodite. Petals united below. Stamens as many as and alternating with petals, sometimes only 1 fertile. Ovary superior, 1—2 celled. Ovules numerous. Style 1. Stigmas 1—2. Fruit a capsule, nut or berry. Seeds minute, endospermic, sometimes winged. 5 genera 34 species.

1. Tufted, usually submerged aquatic with leaves floating.  
Leaves alternate or all radical. Corolla induplicate-valvate.

### 5 LIMNANTHEMUM.

- Leaves opposite. Corolla lobes contorted. 2.
2. Ovary 1 celled. 3.
- Ovary 2 celled. 4.
3. Corolla with 1—2 glandular nectaries at base of each segment.  
Tube very short. Pollen grains tubercled.

### 4 SWEERTIA.

Corolla without nectaries. Pollen grains smooth or dotted.

### 3 CHIRONIA.

4. Disc glands between calyx and corolla. Style without a 2 glandular swelling. 2 EXOCHAENIUM.
- No disc glands. Style usually with a 2 glandular swelling near the base. 1 SEBAEA.

1. **SEBAEA** Soland. (Mostly in grassveld and vleis.)

1. **mirabilis** Gilg. Mid-Illovo, 1-2,000 ft.
2. **junodii** Schinz. Howick. Shady places.
3. **filiformis** Schinz. Polela and Drakensberg.
4. **rotundifolia** A. W. Hill. Drakensberg.
5. **acutiloba** Schinz. Coastbelt. Clairmont.
6. **vitellina** Schinz. Coast and Midlands.
7. **schoenlandii** Schinz. Coastbelt and Zululand.
8. **sedoides** Gilg. Grassveld. Common all over.
9. **confertiflora** Schinz. Midlands and upper districts.
10. **acuminata** A.W.H. Boston.
11. **macrantha** Gilg. Midlands.
12. **longicaulis** Schinz. Midlands, in vleis.
13. **schinziana** Gilg. Bushman's River. Drakensberg.
14. **leiostyla** Gilg. Midlands.
15. **imbricata** A.W.H. Summit of Amajuba, 8,000 ft.
16. **rudolfii** Schinz. Midlands.



17. *repens* Schinz. Drakensberg. Damp places on wet rocks.
18. *thodeana* Gilg. Drakensberg.
19. *spathula* Steud. Giants' Castle, 6,000 ft.
20. *thomasii* Schinz. Drakensberg. Tabamhlope.
21. *pentandra* E.M. Near Boston. 3-4,000 ft.
22. *procumbens* A.W.H. Mont Aux Sources, 9,500 ft.
23. *woodii* Gilg. Midlands.
24. *marlothii* Gilg. Drakensberg, 9-10,000 ft.
2. **EXOCHAENIUM** Griseb.
  - grande* Griseb. Coast and Midlands. Common.
  - grande* var *homostylum*. Inanda.
3. **CHIRONIA** L.
  1. *baccifera* L. var *dilatata* E.M. Coast sand dunes.
  2. *rosacea* Gilg. Coastbelt and Zululand vleis.
  3. *palustris* Burch. Midland vleis.
  4. *krebsii* Griseb. Midlands and Drakensberg. Vleis.
  5. *purpurascens* Bth. Coast and Midlands. Vleis.
  - purpurascens* var *impedita*. Ixopo.
  6. *peduncularis* Lindl. Tongaat.
  7. *humilis* Gilg var *zuluensis* Prain. Zululand.
4. **SWEERTIA** L.
  - stellarioides* Ficalho. Van Reenen, 7,000 ft. Damp places.
5. **LIMNANTHEMUM** S.M. Gmel.
  - thunbergianum* Griseb. Coastbelt and Mid'ands. In pools and streams.

## FAMILY 127—APOCYNACEAE.

Trees or shrubs, rarely herbs. Usually milky. Leaves simple, usually opposite entire penninerved. Stipules if present usually interpetiolar, forming a transverse ridge, sometimes spiny. Flowers regular or nearly so, 5, rarely 4-merous. Petals united below, with contorted aestivation. Stamens 5 or 4 inserted in corolla tube or throat. Ovary superior, rarely half inferior, 1-2 celled, or 2 or more separate carpels. Ovules 2 or more in each cell, rarely 1, pendulous, inverted. Style 1, entire or divided at base, bearing stigmas on the under surface of the thickened part, and sometimes 2 lobed above it. Seeds usually endospermic, often winged or with a tuft of hairs at one or both ends. 12 genera 18 species.

1. Anther cells diverging below, the outer halves passing into barren tailed appendages. Stamens closely connected with stigmatic head. Seeds usually with tufts of hairs. Fruit dry, dehiscent. (*Echitoideae*.) 2.

Anther cells not diverging below and tailed, or if tailed then fruit fleshy, and seeds not comose. Stamens free or loosely connected with stigmatic head. 6.

2. Succulent shrubs with swollen stems and fleshy branches.  
Leaves alternate. 3.

Trees and shrubs with woody stems. Leaves opposite or whorled. 4.

3. Unarmed. 11 **ADENIUM**.

Armed with spines at bases of leaves.

12 **PACHYPODIUM**.

4. Anther cone exserted from corolla tube. 8 **WRIGHTIA**.

Anther cone concealed in corolla tube. 5.

5. Corolla small with 5 ligulate scales in the throat.

10 **ONCINOTIS**.

Corolla fairly large with bipartite scales in the throat and usually tailed segments. 9 **STROPHANTHUS**.

6. Carpels only partly united. Ovaries wholly free or in their upper part only. Styles usually free at the base. 7.

Carpels united throughout their whole length. 10.

7. Ovules 2 in each carpel. Leaves with axillary glands.

4 **RAUWOLFIA**.

Ovules numerous in each carpel. 8.

8. Small undershrub. Calyx without basal glands.

5 **LOCHNERA**.

Trees. Calyx with glands at the base. Fruit fleshy. 9.

9. Sepals united high up, circumscissile at base, deciduous.

7 **VOACANGA**.

Sepals free, not circumscissile at base.

6 **CONOPHARYNGIA**.

10. Ovary 1 celled. Stigma glabrous.

Ovary 2 celled. Stigma tips hairy. 11.

11. Shrubs with simple or forked spines.

2 **CARISSA**.

Unarmed shrubs.

3 **ACOKANTHERA**.

1. **LANDOLPHIA** Beauv.

1. *kirkii* Dyer. var. *delagoensis* Dewevre. Tongoland, N.E. Zululand.

2. *capensis* Oliv.? Empangeni and Ngoya, Zululand.

2. **CARISSA** A.DC.

1. *grandiflora* A.DC. "Amatungulu." Coastbelt. Common.

2. *wyliei* N.E.Br. Ngoya, Zululand.

3. *ardua* Lam. Coast to Drakensberg. "Beta-umtunzi." "umVusamkunzi."

2. **ACOKANTHERA** G. Don. "inTlunganyembe."

1. *venenata* G. Don. Coastbelt and Midlands.

2. *spectabilis* Hk.f. Coast scrub. "uBethlungubenyoka."

4. **RAUWOLFIA** L. "umJela."

*natalensis* Sond. "Quinine tree." Common. Coast and Midlands, especially in stream bank bush.

5. **LOCHNERA** Reichb.

*rosea* Reichb. Common on coastbelt. Introduced.

6. **CONOPHARYNGIA** G. Don. "umKahlu" or "umHlambama."  
*ventricosa*. Tree. Common in coastbelt hygrophilous bush.
7. **VOACANGA** Thouars "umKahla" or "umHlambamas."  
*dregei* E.M. Coastbelt hygrophilous bush. Common; some-  
 times dominant.
8. **WRIGHTIA** R.Br. (Shrub.)  
*natalensis* Stapf. Locally frequent in coast scrub.
9. **STROPHANTHUS** DC. "Hlawi." "umZombocani."  
 1. *gerrardi* Stapf. Frequent in coast scrub. Climber  
 2. *speciosus* Reber. Midlands and Zululand. Climber.
10. **ONCINOTIS** Bth. "Zongazonga." "uBuku."  
*inandensis* Wood & Evans. Herbaceous climber. Locally  
 abundant in coastbelt scrub.
11. **ADENIUM**. Roem and Schult. (Succulent shrubs.)  
 1. *swazicum* Stapf. Zululand.  
 2. *multiflorum* Klotzsch. Zululand.
12. **PACHYPODIUM** Lindl.  
*saundersii* N.E.Br. Zululand. Lebombo mountains. In very  
 stony places.

## FAMILY 128—ASCLEPIADACEAE.

Erect, prostrate, twining or scrambling herbs or shrubs usually with milky juice. Leaves simple, exstipulate, usually opposite. Flowers regular, hermaphrodite, 5 merous. Sepals free or nearly so. Petals united below. Stamens 5 usually adnate to style. Filaments short or wanting. Pollen grains united in masses or in granules of 3—5 grains. Corona formed of appendages of stamens and petals. Ovaries 2 free, superior, rarely half inferior. Ovules numerous, rarely few or 1. Styles 2, united above into a thickened head, bearing on its under surface 5 stigmatic dots, and on its sides between the anthers 5 small, usually horny, pollen carriers. Fruit of 1—2 follicles. Seeds usually with a tuft of hairs and little endosperm. 33 genera 179 species.

1. Filaments of stamens free. Pollen in loose granules.  
 (Periploceae). 2.  
 Filaments absent or united. Pollen in 1—2 waxy masses. 5.  
 2. Corolla with a distinct tube, campanulate or cylindrical. 3.  
 Corolla lobed nearly to base, rotate. 4.  
 3. Corona lobes free, inserted with the stamens above the middle  
 or at the throat of the corolla tube.

### 2 RAPHIONACME.

Corona lobes inserted near the middle of the corolla tube,  
 distinctly above the bases of the stamens.

### 1 CRYPTOLEPIS.

4. Corona lobes filiform, or linear and divided into 2—3 filiform segments. Stipules a line connecting bases of petioles.

**3 TACAZZEA.**

Corona lobes broadly obcordate. Stipules toothed or frill-like.

**4 CHLOROCODON.**

5. Pollen masses 2 in each anther half, 4 on each carrier, very small.

**5 SECAMONE.**

Pollen masses 1 in each anther half, 2 on each carrier.

6. Pollen masses contained in the lower part of the anthers, pendulous from the arms of the pollen carriers.

**(Asclepiadeae.) 7.**

Pollen masses in the upper part of the anthers, attached to the pollen carriers in an erect, ascending or horizontal position.

7. Corona lobes free or nearly so, except in **Cynanchum**. Stems erect or procumbent, never twining.

Corona lobes usually united high up. Stems twining or rambling.

8. Corona lobes united in a tube.

**16 CYNANCHUM.**

Corona lobes free or nearly so.

9. Corona lobes distinctly concave or laterally compressed, sometimes with a horn-like process within the cavity.

Corona lobes flat or rather flat or dorsally compressed or very fleshy but not concave, sometimes with keels or processes on the base.

10. Corona lobes exceeding corolla, strongly keeled all down the back with a rhomboid winglike expansion on the back at the base. Apex incurved.

**10 KREBSIA.**

Corona lobes not as in **Krebsia**.

11. Sepals without basal glands. Corona lobes with large appendages on the inside margins, ascending staminal column as narrow wings.

**6 WOODIA.**

Sepals with basal glands, solitary or paired. Corona lobes more or less laterally flattened with or without a horn from the central cavity.

**13 ASCLEPIAS.**

12. Corona lobes very thick and fleshy, or if moderately fleshy then without an appendage or with 1 keel on the inner face.

**7 XYSMALOBIMUM.**

Corona lobes thin or flattened dorsally, rarely somewhat fleshy and then with 1—2 appendages or 2 keels on inner face.

13. Flowers large and showy, white with a purple corona. Corona lobes with 2 erect basal lobules, but no keels. Corolla lobes sub-erect.

**12 FANNINIA.**

Not as for **Fanninia**.

14. Staminal column (stigmatic head) subglobose from being constricted at apex and base.

**8 PERIGLOSSUM.**



- Staminal column cylindrical or broadly conical. 15.
15. Style produced much beyond the erect anther appendages. 9 **CORDYLOGYNE**.
- Style truncate or depressed at the apex. 16.
16. Corona lobes erect, thin (very rarely somewhat thick) usually with 2 keels. 11 **SCHIZOGLOSSUM**.
- Corona lobes very spreading or spreading at the base with erect or incurved tips, rarely wholly erect and then with reflexed sides and a single keel down the face. Usually with 2 contiguous fleshy keels at the base.
- 14 **PACHYCARPUS**.
17. Corona double (in 2 distinct series). 18.
- Corona simple (no outer corona). 19.
18. Stem leafless fleshy. 17 **SARCOSTEMMA**.
- Stem not fleshy. Leaves large, cordate. 18 **PERGULARIA**.
19. Corona lobes short, usually tubercle-like. 19 **TYLOPHORA**.
- Corona lobes or corona not tubercle-like. 20.
20. Corona of 5 free lobes, with infolded margins with a horn directed over or towards the anthers.
- 15 **PENTARRHINUM**.
- Corona annular or tubular, truncate or toothed at top, or divided nearly to base into 5 flattened entire or toothed lobes. 16 **CYNANCHUM**.
21. Anthers with a distinct, membranous appendage at the apex. Corolla usually with contorted aestivation. 22.
- Anthers without or with a very small appendage or small point at the apex, corolla nearly always with valvate aestivation. 25.
22. Corona of 5 scales arising from the corolla below its sinuses. Twining hairy shrubs. 25 **GYMNEMA**.
- Corona arising from the stamens or in the angle between the staminal column and the corolla. 23.
23. Corona tubular lobed or toothed at the top with extra teeth and 5 pairs of wing-like keels within the tube. Erect or twining. 24 **FOCKEA**.
- Corona lobes free or united at the base arising from staminal column. 24.
24. Corona lobes with a narrow appendage on the inner face. 23 **TELOSMA**.
- Corona lobes without an appendage on the inner face. 22 **MARSDENIA**.
25. Stem cactus-like, angled. Leaves small or wanting. Dwarf succulents. 26.
- Stem herbaceous, or woody, or, if fleshy, then climbing. 28.
26. Corolla with accessory teeth between the lobes. 32 **HUERNIA**.

- Corolla without accessory teeth between the lobes. 27.
27. Corolla lobes broad. 33 **STAPELIA**.  
Corolla lobes narrowly lanceolate. 31 **CARALLUMA**.
28. Corolla tubular, 2 to several times as long as its diameter in the middle, often inflated at the base. 29.  
Corolla rotate or campanulate. Tube short, or, if long, then wide. 30.
29. Flowers long stalked in fascicles arranged in racemes or panicles. 27 **RIOCREUXIA**.  
Flowers solitary or in umbels or racemes, or if in fascicles arranged in racemes or panicles, then short stalked. 28 **CEROPEGIA**.
30. Corona of 5 broad, bifid lobes with a long, linear filiform appendage on their inner face, or the dorsal part of the lobe short and subulate, appearing to arise from the back of the inner part. Stem prostrate. Flowers small. 30 **ANISOTOMA**.  
Corona either simple without filiform appendages or in 2—3 series. 31.
31. Corona simple. 32.  
Corona in 2 or 3 series. 34.
32. Twining plants. (see 19). 19 **TYLOPHORA**.  
Erect plants. 33.
33. Sepals with glands. Corolla contorted. Leaves oblong or elliptic. Corona of 5 small fleshy tubercles. 21 **SPHAEROCODON**.  
Sepals without glands. Corolla valvate. Leaves linear. Corona lobes ovate or oblong, sometimes 3 toothed. 26 **SISYRANTHUS**.
34. Stem long twining. Leaves cordate. 20 **EMPLECTANTHUS**.

# 29 **BRACHYSTELMA**

## 1. **CRYPTOLEPIS** R.Br.

1. **capensis** Schltr. Climber. Coast and Midlands.
2. **oblongifolia** Schltr. Erect shrub. Margins of coast scrub.

## 2. **RAPHIONACME** Harv. "uMathanjane."

1. **flanagani** Schltr. Twining among shrubs of Thorn veld. Tugela Valley.
2. **elata** N.E.Br. Coast grassveld.
3. **galpini** Schltr. Coast grassveld.
4. **divaricata** Harv. Common in coast and Midland grassveld.  
**divaricata** var **glabra** N.E.Br. Midlands and Drakensberg.

3. **TACCAZZEA** Decne. (Climbers in scrub and forest).
  1. *kirkii* N.E.Br.
  2. *natalensis* N.E.Br. Umbogintwini.
4. **CHLOROCODON** Hk.f. "uMondi."
  - whytei Hk.f. Climber in coastbelt bush.
5. **SECAMONE** R.Br. (Climbers). "isiUlulu." "inHlanhla."
  1. *gerrardi* Harv. Coastbelt and Midlands. "uGobanhlovu." "umHlonyise."
  2. *alpini* Schultes. Coast and Midlands.
  3. *frutescens* Decne. Coast and Midlands.
6. **WOODIA** Schltr.
  1. *mucronata* N.E.Br. var *trifurcata*. Ntondweni, Zululand.
  2. *verruculosa* Schltr. Grassveld. Hills near Camperdown.
7. **XYSMALOBIUM** R.Br. (Grassveld herbs.)
  1. *involucratum* Decne. Coast and Midlands. Common.
  2. *carinatum* N.E.Br. Near Kokstad.
  3. *stockenstromense* Scott-Elliott. Weenen and Drakensberg, 7,800 ft.
  4. *undulatum* R.Br. Midlands.
  5. *confusum* Scott Elliot. Midlands.
  6. *orbiculare* D. Dietr. Coastbelt and Zululand.
  7. *gerrardi* Scott-Elliott. Coast and Midlands.
  8. *parviflorum* Harv. Midlands and Drakensberg. Common.
  9. *asperum* N.E.Br.
  10. *tysonianum* N.E.Br. Kokstad.
  11. *prunelloides* Turcz. Jolivet, 3,000 ft.
  12. *woodii* N.E.Br. Van Reenen.
8. **PERIGLOSSUM** Decne (Grassveld herbs).
  1. *angustifolium* Decne. Midlands. Common.
  2. *mackenii* Marv. Near Durban.
9. **CORDYLOGYNE** E. Meyer. (Grassveld herbs.)
  - globosa* E.M. Midlands and upper districts.
10. **KREBSIA** Harv. (Grassveld herbs.)
  1. *corniculata* Schltr. Buffalo Valley.
  2. *stenoglossa* Schltr. Ntondweni, Zululand.
11. **SCHIZOGLOSSUM** E. Meyer. Grassveld herbs.
  1. *cordifolium* E.M. Coast, Midlands and Zululand.
  2. *atropurpureum* E.M. Drakensberg and Buffalo River Valley.
  3. *hamatum* E.M. Dargle and Insiswa.
  4. *virens* E.M. Coastbelt.
  5. *euphorbioides* E.M. Coastbelt. Sand dunes, near sea.
  6. *nitidum* Schltr. Midlands. Common.
  7. *elingue* N.E.Br. Drakensberg.

8. **flavum** Schltr. Nottingham Road.  
     **flavum** var **lineare** N.E.Br. Midlands and Drakensberg.
9. **stenoglossum** Schltr. Midlands and Drakensberg.
10. **decipiens** N.E.Br. Weenen, South Downs.
11. **pachyglossum** Schltr. Midlands.  
     **pachyglossum** var **abbreviatum** N.E.Br. Midlands.
12. **orbiculare** Schltr. Wessel's Nek.
13. **macowani** var **tugelense** N.E.Br. Tugela.
14. **grandiflorum** Schltr. Inchanga.
15. **contracurvum** N.E.Br. Riet Vlei.
16. **ciliatum** Schltr. Midlands.
17. **striatum** Schltr. Inanda.
18. **robustum** Schltr. Midlands.  
     **robustum** var **pubiflorum** N.E.Br. Krantzkop.  
     **robustum** var **inandense** N.E.Br. Inanda.
19. **pilosum** Schltr. Midlands.
20. **pulchellum** Schltr. Midlands.
21. **verticillare** Schltr. Midlands.
22. **tubulosum** Schltr. Midlands.
23. **glanduliferum** Schltr. Midlands.
24. **biflorum** Schltr. Howick.
25. **strictum** Schltr. Ingagane, 4,000 ft.
26. **araneiferum** Schltr. Newcastle.
27. **glabrescens** Schltr. var **longiroste** N.E.Br. Howick.
28. **lamellatum** Schltr. Colenso.
29. **carinatum** Schltr. Coastbelt and Zululand.
30. **commixtum** N.E.Br. Howick.
31. **parile** N.E.Br. Howick.
32. **buchanani** N.E.Br.
33. **parcum** N.E.Br. Coastbelt. Inanda.
34. **exile** Schltr.
35. **woodii** Schltr. Midlands.
36. **interruptum** Schltr. Maritzburg.
37. **altissimum** Schltr. Estcourt, 3,800 ft.
38. **ingomense** N.E.Br. Ingoma, Zululand.
39. **peglerae** N.E.Br. Botha's Hill.
40. **unicum** N.E.Br. Ingoma, Zululand.
41. **auriculatum** N.E.Br. Howick, 3,800 ft.
12. **FANNINIA** Harv.  
     **caloglossa** Harv. Herb. Dargle farm.
13. **ASCLEPIAS** L. (Grassveld herbs.)
  1. **cucullata** Schltr. Midlands and Drakensberg foothills.
  2. **praemorsa** Schltr. Coast and Midlands.
  3. **peltigera** Schltr. Inanda.
  4. **bicuspis** N.E.Br. Dargle.
  5. **meyeriana** Schltr. Midlands.



6. *stellifera* Schltr. Midlands.
  7. *multicaulis* Schltr. Riet Vlei.
  8. *flexuosa* Schltr. Common all over.
  9. *brevicuspis* Schltr. Coastbelt and Zululand.
  10. *gibba* Schltr. Coast and Midlands.  
*gibba* var *media* N.E.Br. Zululand.
  11. *eminens* Schltr. Midlands and Zululand.
  12. *aurea* Schltr. Midlands.  
*aurea* var *vittata* N.E.Br. Midlands.
  13. *flava* N.E.Br. Midlands.
  14. *schizoglossoides* Schltr. Inanda and Van Reenen.
  15. *decipens* N.E.Br. Mooi River.
  16. *fruticosa* L. Midlands. Common.
  17. *physocarpa* Schltr. Coastbelt and Midlands. Common.  
"Qomantanetu."
  18. *dregeana* Schltr. var *calceolus*. N.E.Br. Midlands.
  19. *cultriformis* Harv. Midlands.
  20. *woodii* Schltr. Midlands.
  21. *albens* Schltr. Coastbelt.
  22. *affinis* Schltr. Midlands.
  23. *macropus* Schltr. Midlands.
  24. *concinna* Schltr. Doubtful.
  25. *involutocrata* Schltr. Alexandra County, 1,800 ft.
  26. *reflexa* Schltr. Alexandra County, 2,000 ft.
  27. *rivularis* Schltr. Ifafa, 2,500 ft.
  28. *humilis* Schltr. Mont Aux Sources, 8,000 ft.
- 14. PACHYCARPUS** E.M. (Grassveld herbs.)
1. *scaber* N.E.Br. Coast and Midlands.
  2. *appendiculatus* E.M. Coastbelt and Zululand.
  3. *inconstans* N.E.Br. Coastbelt.
  4. *natalensis* N.E.Br. Coast and Midlands.
  5. *plicatus* N.E.Br. Midlands.
  6. *dealbatus* E.M. Midlands and mountains.
  7. *concolor* E.M. Midlands.
  8. *decorus* N.E.Br.
  9. *mackenii* N.E.Br. Zululand.
  10. *grandiflorus* E.M. Midlands.  
*grandiflorus* var *elatocarinatus* N.E.Br. Midlands.
  11. *campanulatus* N.E.Br. Coast to Drakensberg.  
*campanulatus* var *sutherlandi* N.E.Br. Midlands.
  12. *asperifolius* Meisn. Margins of woods around Durban Bay.
  13. *rostratus* N.E.Br. Zululand.
  14. *macrochilus* N.E.Br. Mont Aux Sources, 7-8,000 ft.
- 15. PENTARRHINUM** E.M.
1. *insipidum* E.M. Twining herb. Coast and Midlands.

2. *coriaceum* Schltr., Doubtful.
16. **CYNANCHUM** L. (All the Natal species are twining).  
 1. *natalitium* Schltr. Coast sand dunes near sea.  
 2. *obtusifolium* L. Sand dunes.  
*obtusifolium* var *pilosum* Schltr. Sand dunes, near sea.  
 3. *capense* Thb. Coastbelt. Pinetown, etc.  
 4. *schistoglossum* Schltr. Coastbelt. Inanda.  
 5. *sarcostemmatoides* K. Schum. Thorn veld.
17. **SARCOSTEMMA** R.Br. (Climbers).  
*viminale* R.Br. Thorn veld. Common climber.
18. **PERGULARIA** L. (Climbers).  
*extensa* N.E.Br. Thorn veld. Climber.
19. **TYLOPHORA** R.Br. (Mostly climbers).  
 1. *anomala* N.E.Br. Climber in coast scrub.  
 2. *flanagani* Schltr. Climber in bush. Coast and Midlands.  
 3. *lycioides* Decne. Climber. Coast scrub and Thorn veld.  
 4. *badia* Schltr. var *latifolia* N.E.Br. Zululand, Climber.
20. **EMPLECTANTHUS** N.E.Br. (Climbers).  
 1. *gerrardi* N.E.Br. Zululand.  
 2. *cordatus* N.E.Br. Thorn veld. Climber.
21. **SPHAEROCODON** Bth.  
*obtusifolium* Bth. Erect herb. Coastbelt.
22. **MARSDENIA** R.Br.  
*floribunda* N.E.Br. Woody climber. Coastbelt bush.
23. **TELOSMA** Coville.  
*africana* N.E.Br. Climber. Coastbelt bush and Thorn veld.
24. **FOCKEA** Endl.  
*tugelensis* N.E.Br. Erect or climbing. Tugela Valley.
25. **GYMNEMA** R.Br.  
*sylvestre* R.Br. Woody climber. Coastbelt scrub.
26. **SISYRANTHUS** E.M. (Grassveld herbs.)  
 1. *saundersiae* N.E.Br. Inanda.  
 2. *anceps* Schltr. Midlands and Inanda.  
 3. *fanninii* N.E.Br. Dargle.  
 4. *trichostomus* K. Schum. Midlands.  
 5. *huttonae* S. Moore. Midlands.  
 6. *imberbis* Harv. Coastbelt.  
 7. *compacta* N.E.Br. Alexandra County, 1,800 ft.  
 8. *franksae* N.E.Br. Zululand.
- 26a. **TENARIS** E.M.  
*simulans* N.E.Br. Umzumbi, 50-100 ft.
27. **RIOCREUXIA** Decne. (Tuberous rooted climbers.)  
 1. *polyantha* Schltr. Midlands.  
 2. *torulosa* Decne. Coastbelt.  
*torulosa* var *tomentosa* N.E.Br. Midlands and Drakensberg.

3. **woodii** N.E.Br. Inanda.
4. **picta** Schltr. Ingome Range.
28. **CEROPEGIA** L. (Tuberous-rooted climbers.)
  1. **scabriflora** N.E.Br. Near Verulam.
  2. **antennifera** Schltr. Near Newcastle.
  3. **rudatisii** Schltr. Midlands.
  4. **haygarthii** Schltr.
  5. **sandersoni** Decne. Thorn veld.
  6. **ampliata** E.M. Thorn veld.
  7. **crassifolia** Schltr. Springvale.
  8. **setifera** Schltr. var **natalensis** N.E.Br. Thorn veld.
  9. **carnosa** E.M. Coastbelt and Zululand.
  10. **woodii** Schltr. Midlands, hanging from rocks.
  11. **caffrorum** Schltr. Near Durban.
  12. **undulata** N.E.Br. Thorn veld. Tugela.
  13. **meyeri** Decne. Midlands and Drakensberg.
  14. **barklyi** Hk.f. var **tugelensis** N.E.Br. Tugela. Thorn veld.
  15. **linearis** E.M. Sand dunes.
29. **BRACHYSTELMA** R.Br. (Dwarf herbs, erect or prostrate).
  1. **foetidum** Schltr. Zululand.
  2. **flavidum** Schltr. Alexandra County.
  3. **pulchellum** Schltr. Rock fissures, Midlands and coast.
  4. **natalense** N.E.Br. Inanda.
  5. **sandersoni** N.E.Br. Coastbelt.
  6. **gerrardi** Harv. Coastbelt.
  7. **barberiae** Harv. Cedara.
  8. **franksiae** N.E.Br.
30. **ANISOTOMA** N.E.Br. (**Anisotome** Fenzl.)
 

**pedunculata** N.E.Br. Herb with prostrate stems. Drakensberg.
31. **CARALLUMA** R.Br.
 

**lutea** N.E.Br. Doubtful.
32. **HUERNIA** R.Br. (Fleshy cactus-like plants.) "uZililo."
  1. **hystrix** N.E.Br. In Thorn veld. Common. Often on ant heaps.
  2. **zebrina** N.E.Br. Zululand.
33. **STAPELIA** L. (Fleshy cactus-like plants.) "uZililo."
  1. **gigantea** N.E.Br. Zululand. 'Nkandhla.
  2. **nobilis** N.E.Br. Drakensberg.
  3. **woodii** N.E.Br. Noodsberg.

## FAMILY 129—CONVOLVULACEAE.

Herbs or shrubs, often twining. Leaves alternate, simple exstipulate or (**Ipomaea**) stipulate. Flowers regular, rarely slightly irregular, usually hermaphrodite. Sepals 5. Corolla 5 lobed or

cleft, usually campanulate. Stamens 5, epipetalous. Ovary superior, 1—4 celled, sometimes deeply divided. Ovules 2, rarely 1—4 in each cell. Styles 1—2, sometimes 2 cleft. Seeds endospermic. 10 genera 45 species.

1. Leafless climbing parasite without chlorophyll. **10 CUSCUTA.**

Not parasitic. 2.

2. Ovary lobed or divided. Sepals united below. Creeping herbs. 3.

Ovary entire. Sepals free. 4.

3. Ovary 4 lobed. Lobes 1 ovuled. Corolla slightly lobed.

**8 FALKIA.**

Ovary 2 lobed. Lobes 2 ovuled. Corolla deeply cleft. Sepals nearly free. **9 DICHONDRA.**

4. Style deeply forked, or styles 2. 5.

Style simple. 6.

5. Style branches forked. Stigmas not capitate. Leaves small.

**6 EVOLVULUS.**

Style branches bifid. Stigmas capitate. (Breweria.)

**7 SEDDERA.**

6 Ovary 1 celled. **2 HEWITTEA.**

Ovary 2—4 celled. 7.

7. Stigmas 2 capitate. Pollen grains usually spinous.

**1 IPOMAEA.**

Stigmas not capitate. 8.

8. Stigmas linear-oblong. Pollen grains spinous. Leaves and stem with stellate hairs. **3 ASTROCHLAENA.**

Stigmas ovate, oblong or filiform. Pollen grains smooth. 9.

9. Stigmas filiform. Corolla funnel-shaped without well-defined midpetaline areas. **5 CONVULVULUS.**

Stigmas ovate oblong. Corolla with well-defined mid-petaline areas. **4 JACQUEMONTIA.**

**1. IPOMAEA L.** (Mostly Twiners.) "iJalambu"

1. *albivenia* Sweet. Tugela Valley and Mooi River.

2. *angustifolia* Jacq. Coastbelt. Common.

3. *argyreoides* Choisy. Midlands. Not twining.

4. *biloba* Forsk. Abundant strand plant. Sea shore.

5. *cardiosepalis* Hochst. Inanda.

6. *crassipes* Hk. Coastbelt.

*crassipes* var *longepedunculata* Hallier. Charlestown.

*crassipes* var *thunbergioides* Hallier. Estcourt.

*crassipes* var *volubilis* Hall. Pinetown.

7. *digitata* L. Coast districts.

8. *ficifolia* Ldl. Coastbelt. "umKhoka wehlati."

9. *geminiflora* Welw. Coastbelt.

10. *gerrardiana* Rendle. Near Ladysmith.

11. *greenstockii* Rendle.



12. **lambtoniana** Rendle. Near Ladysmith.
13. **oblongata** E.M. Tugela district.
14. **obscura** Ker. Near Durban.  
     *obscura* var *longipes* C. H. Wright. Inanda.
15. **oenothera** Hallier. Thorn veld. Not twining.
16. **ovata** E.M. Coast and Midlands. Common. "uBoqo."
17. **palmata** Forsk. Coastbelt. Very common. "uMaholwana."
18. **purpurea** Roth. Coastbelt.
19. **quinquefolia** Hochst. Mooi River. Sandy flats.
20. **saundersiana** Baker. Doubtful.
21. **simplex** Thb. Coast and Midlands. Common. Not twining. "iGontshi."
22. **sublucens** Rendle. Zululand.
23. **tetraptera** Baker. Coast and Midlands.
24. **woodii** N.E.Br. Zululand.
25. **wightii** Choisy. Inanda. Zululand.
2. **HEWITTEA** Wight & Arn.  
     *bicolor* W. & A. Twining. Coastbelt.
3. **ASTROCHLAENA** Hallier.  
     *malvacea* Hallier. Not twining. Coastbelt.
4. **JACQUEMONTIA** Choisy.  
     *capitata* L. Don. Annual herbs, twining. Coastbelt.
5. **CONVOLVULUS** L. (Twining or trailing.)
  1. *arvensis* L. Ruderal. In cultivated land.
  2. *bullerianus* Rendle. Midlands.
  3. *calycinus* E. M. Inanda.
  4. *capensis* Burm. var *natalensis* Baker. Tugela Valley.
  5. *farinosus* L. Coastbelt.
  6. *hastatus* Thb. var *natalensis* Baker. Zululand.
  7. *natalensis* Bernh. Inanda. Midlands and Zululand.
  8. *sagittatus* Thb. Upper Tugela.  
     *sagittatus* var *graminifolia* Hallier. Camperdown.
  9. *ulosepalus* Hallier. Tugela. Weenen County.
6. **EVOLVULUS** L.  
     *alsinoides* L. Trailer. Tugela and near Verulam.  
     *alsinoides* var *linifolius* Baker. Tugela.
7. **SEDDERA** Hochst. (*Breweria* R.Br.)  
     *capensis* Hall.f. Undershrub. Grassveld. Colenso.
8. **FALKIA** L.  
     *oblonga* Bernh. Coastbelt.
9. **DICHONDRA** Forst.  
     *repens* Forst. Small prostrate herb. Umzinyati Valley.
10. **CUSCUTA** L. Parasitic. "uMankunkunku."
  1. *appendiculata* Engelm.
  2. *cassythoides* Nees. Midlands. Common.

3. **gerrardii** Baker. Damp places. Zululand.  
 4. **natalensis** Baker. Coast and Midlands.

## FAMILY 130—BORRAGINACEAE.

Herbs, shrubs, or trees. Leaves, at least the upper, alternate, exstipulate. Flowers, 4—7 merous, usually 5 merous, hermaphrodite. Petals united below, often with scales at the throat of the tube. Stamens as many as petals, epipetalous. Ovary superior, sessile, lobed, usually 4 celled. Style terminal or gynobasic, 2—4 cleft. Ovule 1 in each cell. Fruit a drupe or schizocarp of 2—4 nutlets. Endosperm scanty or wanting. 7 genera 12 species.

1. Shrubs or trees. Fruit drupaceous. Style terminal. 2.  
 Stem herbaceous or woody at base. Fruit dry, of 2—4 nutlets. 3.  
 2. Style twice cleft. 1 **CORDIA**.  
 Style 2 lobed, not twice cleft. 2 **EHRETIA**.  
 3. Ovary indistinctly 4 lobed, 4 celled. Nutlets 1—3, much laterally compressed, one larger and winged. 7 **TYSONIA**.  
 Ovary deeply 4 lobed. Style gynobasic. Nutlets not laterally compressed. Usually 4. 4.  
 4. Nutlets spiny, united with style, imperforate at base. 5.  
 Nutlets smooth or granular, not united with style or style base. 6.  
 5. Nutlets depressed, irregularly covered with bristles.

### 3 **CYNOGLOSSUM**.

Nutlets not depressed, margined with bristles.

### 4 **ECHINOSPERMUM**.

6. Corolla open. Bracts present. 6 **LITHOSPERMUM**.  
 Corolla closed with scales. Bracts 0 or few at the base of the inflorescence. 5 **MYOSOTIS**.

1. **CORDIA** L. "Lovulovu." "umNofunofu."  
**caffra** Sond. Shrub. Coastbelt and Thorn veld. Common.

2. **EHRETIA** L. "umHlele." "umCele." "umGxele."  
**hottentotica** Burch. Shrub or small tree. Common in Thorn veld, coastbelt scrub, and Midlands.

### 3. **CYNOGLOSSUM** L.

1. **enerve** Turcz. Grassveld, coast and Midlands.  
 2. **micranthum** Desf. Grassveld, coast to Drakensberg.

### 4. **ECHINOSPERMUM** Swartz.

1. **capense** DC.  
 2. **lappula** Lehm.

### 5. **MYOSOTIS** L.

1. **afropalustris** C. H. Wright. Vleis and streams. Common.

2. *sylvatica* Hoffm. Drakensberg streams.
6. **LITHOSPERMUM** L.
1. *arvense* L. Ruderal. Common.
2. *cinereum* DC. Midlands.
3. *officinale* L. Midlands.
7. **TYSONIA** Bolus.
- africana* Bolus. Foot of Drakensberg, 5,000 ft.

### FAMILY 131—VERBENACEAE.

Herbs, shrubs or trees. Leaves usually opposite or whorled, simple or compound, exstipulate. Flowers usually irregular, hermaphrodite. Sepals united below, 4—8. Petals united 4—8. Stamens 4. Ovary superior, sessile, entire or slightly lobed, completely or incompletely 2—4 (rarely 8) celled, sometimes only 1 cell fertile. Ovules 1 in each complete or incomplete cell. Style terminal, simple or 2—4 cleft. Fruit usually more or less drupaceous. Seeds endospermic in *Stilbeae*, otherwise usually not. 9 genera 24 species.

1. Inflorescence racemose (centripetal) in spikes or racemes, ovules basal. 2.
- Inflorescence cymose. Trees or shrubs. Ovules inserted laterally or pendulous. 7.
2. Inflorescence a branched raceme. Fruit of 4 pyrenes, each 2 chambered and 2 seeded. **6 DURANTA.**
- Inflorescence a spike or unbranched spicate raceme. 3.
3. Ovary 2 celled, 1 ovule in each. Fruit of 2 (or 1) pyrenes. 4.
- Ovary 4 chambered, with 1 ovule in each chamber. 6.
4. Calyx not less than quarter inch long. **3 BOUCHEA.**
- Calyx about one-twelfth inch long. 5.
5. Calyx obscurely toothed or truncate. Fruit drupaceous.
- 1 LANTANA.**
- Calyx 2—4 lobed or toothed. Fruit dry, hard. **2 LIPPIA.**
6. Pyrenes 2, each 2 seeded. **4 PRIVA.**
- Pyrenes 4, each 1 seeded. **5 VERBENA.**
7. Mangroves growing in brackish water. Cymes capitate. **9 AVICENNIA.**
- Ovule pendulous.
- Not mangroves. Cymes not capitate. Ovule lateral. 8.
8. Leaves simple. Drupe 4 lobed or furrowed. Pyrenes 4.
- 7 CLERODENDRON.**
- Leaves usually compound. Drupe entire, containing a single 4-chambered pyrene. **8 VITEX.**
- 1. LANTANA** L. "umPema." "uQuquvama."
1. *salvifolia* Jacq. Coast and Midlands. Common.
2. *camara* L. Introduced. Common.
- 2. LIPPIA** L.
1. *nodiflora* Mich. Sandy places near sea.

2. *asperifolia* Rich. Coast and Midlands. "umSuswane."
3. *scaberrima* Sond. Near Weenen, 3,000 ft.
3. **BOUCHEA** Cham.
  1. *hederacea* Sond var *natalensis* H.H.W.P. Thorn veld.
  2. *cuneifolia* Schauer. Coast and Midlands.
  3. *latifolia* Harv. Grassveld, Midlands and Zululand.
  4. *krookii* Gürke. Ixopo.
4. **PRIVA** Adans.
 

*leptostachya* Juss. Near Durban.
5. **VERBENA** L.
  1. *bonariensis* L. Near Richmond. Introduced.
  2. *officinalis* L. Common.
  3. *tenera* Spreng. Edendale. Introduced.
6. **DURANTA** L.
 

*plumieri* Jacq. Doubtful.
7. **CLERODENDRON** L. "umQongo." "umQwaqwana."
  1. *glabrum* E. M. Coastbelt and Zululand. Small tree.
  - glabrum* var *ovata* H.H.W.P. Coastbelt and Zululand.
  2. *triphyllum* H.H.W.P. Low undershrub. Midlands.
  3. *hirsutum* H.H.W.P. Coast and Midlands. Undershrub.
  4. *caeruleum* N.E.Br. Midlands. Shrub.
  5. *myricoides* R.Br. Coastbelt. Shrub, erect or scandent.
8. **VITEX** L.
  1. *geminata* H.H.W.P. Umhlatusi, Zululand.
  2. *mociensis* H.H.W.P. Mooi River. Scrub.
  3. *harveyana* H.H.W.P. Upper Tugela and Zululand.
  4. *rehmanni* Gürke. Thorn veld. Mooi River.
9. **AVICENNIA** L.
 

*officinalis* L. White Mangrove. Usually dominant in mangrove formation near river mouths, e.g., near Congella.

## FAMILY 132—LABIATAE.

Herbs or shrubs, usually with square stems. Leaves opposite or whorled, rarely alternate, simple, exstipulate. Flowers irregular or subregular, hermaphrodite, rarely unisexual. Calyx tubular, usually persistent. Corolla usually 2 lipped and 2—6 lobed. Stamens usually 4, rarely 2, epipetalous. Ovary superior, 4 lobed or 4 parted, 4 celled. Style central, arising from the base between the lobes, simple or 2 cleft. Ovules 1 in each cell. Fruit separating into 4 nutlets. Endosperm little or 0. 21 genera 109 species.

1. Nutlets with large lateral surface of attachment. Ovary slightly lobed, rarely to the middle. Corolla 1 lipped or 2 lipped with upper very short. (Ajugoidae) 2.



Nutlets with a small basal or sub-basal surface of attachment.

Corolla 2 lipped or 4—5 lobed. Ovary deeply lobed or divided. 3.

2. Corolla 1 lipped, all its lobes being placed below the stamens.  
Lobes 5, lowermost largest. **20 TEUCRIUM.**

Corolla 2 lipped with short upper lip subentire or 2 fid. Lower lip spreading, 3 lobed. **21 AJUGA.**

3. Stamens descending on the lower lip or the lower part of the corolla or lying upon it. Anther halves spreading confluent at the apex. Corolla 2 lipped or nearly regular. Upper lip flattish or not hooded. Lower lip nearly always entire. (**Ocimoideae.**) 4.

Stamens ascending or projecting straight forwards. Corolla 2 lipped with convex upper and 3 lobed lower lip or subequally 4—5 cleft. 14.

4. Flowers bisexual but with an ovary in male flowers which is never fertile, the sexes on different plants. Calyx minute. Corolla very small. Stamens equally spreading.

**11 IBOZA.**

Flowers hermaphrodite, all with a fertile ovary. 5.

5. Corolla obscurely 2 lipped, 4 lobed, very small stamens included in corolla tube. **9 ENDOSTEMON.**

Corolla distinctly 2 lipped, or if obscurely, then 5 lobed. Stamens exserted. 6.

6. Calyx very small, falling away by a clean cut, just above the base in the fruit. Stamens all free.

**8 AEOLANTHUS.**

Calyx persistent in the fruit, distinctly 3-5 toothed. 7.

7. Upper pair of filaments bent like a knee or toothed or crested near the base. Style apex 2 cleft or distinctly notched. 8

Upper pair of filaments not kneed, toothed or crested, but sometimes bearded or ciliate. Lower pair or all sometimes united. 9.

8. Upper teeth of the calyx separated from the others by a broad space which is ciliate or small toothed along its margin.

**1 BÉCIUM.**

No broad space separating upper calyx teeth from the others.

**2 OCIMUM.**

9. Tall annual. Lower lip of corolla short, saccate abruptly bent downwards, narrowed at the base. 4 upper lobes flat.

**10 HYPTIS.**

If lower lip of corolla reflexed, then upper unequally 3 lobed. 10.

10. Calyx with 5 equal rigid spinelike teeth. False whorls arranged in dense spikes. **7 PYCNOSTACHYS.**

Calyx unequally toothed, or if teeth equal, then not rigid and spinelike or flowers not in very dense spikes. 11.

11. Filaments united at base into a closed tube. **6 COLEUS.**  
Filaments free, or if united, tube slit open. 12.
12. Calyx subequally 5 toothed. Lower pair of filaments united.  
**4 SYNCOLOSTEMON.**  
Calyx unequally 5 toothed (upper larger), or if equally 5-toothed, then all filaments free. 13.
13. Upper tooth of calyx much larger than others, suborbicular, very broadly ovate or oblong. Lower lip of corolla concave.  
**3 ORTHOSIPHON.**  
Calyx usually 2 lipped, 5 toothed. Teeth subequal or upper widest. Lower lip of corolla, entire boat shaped.  
**5 PLECTRANTHUS.**
14. Stamens 2. Connective prolonged. **14 SALVIA.**  
Stamens 4. 15.
15. Corolla more or less regular or 2 lipped with a flat upper lip.  
**(Satureieae).** 16  
Corolla distinctly 2 lipped with a convex upper lip.  
**(Stachyeae)** 17.
16. Calyx 10 nerved. Corolla subequally 4 lobed. Stamens equal, erect, distant.  
**12 MENTHA.**  
Calyx 13—15 nerved. Corolla 2 lipped. Stamens ascending.  
**13 SATUREIA.**
17. Stamens included in the tube. **15 ACROTOME.**  
Stamens exerted. 18.
18. Style subequally bifid at the apex. **16 STACHYS.**  
Style branches very unequal, posterior shorter. 19.
19. Upper lip of corolla much longer than lower.  
**19 LEONOTIS.**  
Lower lip of corolla about as large as upper 20.
20. Calyx 6—10 toothed. **17 LEUCAS.**  
Calyx 5 toothed. **18 LASIOCORYS.**
1. **BECIUM** Lindley. (Grassveld herbs.)  
*obovatum* N.E.Br. Coast and Midlands. Common.  
*obovatum* var *galpini*. Zululand and coastbelt.
2. **OCIMUM** L. "uQabukulu."  
*suave* Willd. Coastbelt and Zululand. Grassveld.
3. **ORTHOSIPHON** Bth. (Margins of bush and grassveld.)
  1. *macrophyllus* N.E.B. Drakensberg.
  2. *latidens* N.E.B. Umvoti.
  3. *macranthus* Guerke. Drakensberg, Upper Tugela
  4. *gerrardi* N.E.B. Ingoma. Rocky ground.
  5. *stenophyllus* Guerke. Midlands and Drakensberg.
  6. *teucრიifolius* N.E.B. Drakensberg.
  7. *pretoriae* Guerke. Midlands and Drakensberg.
  8. *wilmsii* Guerke. Coast and Midlands.
  9. *inconcinnus* Briq. Camperdown.

10. *bolusii* N.E.B. Giants' Castle.
4. **SYNCOLOSTEMON** E.M. (Margins of bush and grassveld.)
  1. *lanceolatus* Guerke. Midlands.  
*lanceolatus* var *grandiflorus* N.E.Br. Near Enon.  
*lanceolatus* var *cooperi* N.E.Br. Camperdown, Zwartkop.
  2. *argenteus* N.E.Br. Zululand.
  3. *parviflorus* E.M. var *dissitiflorus* N.E.B. Coastbelt.
  4. *rotundifolius* E.M. Coast and Midlands.
5. **PLECTRANTHUS** L'Herit. (Margins of bush, Thorn veld, and grassveld.)
  1. *calycinus* Bth. Coast to Drakensberg. Common.  
*calycinus* var *pachystachyus* T. Cooke. Near Umkomaas,
  2. *petiolaris* E.M. Coastbelt.
  3. *floribundus* N.E.Br. Inanda. Leafless when in flower.
  4. *saccatus* Benth. Coastbelt. Common.
  5. *rehmanni* Guerke. Karkloof.
  6. *krookii* Guerke. Eisdumbini, 1-2,000 ft.  
*krookii* var *grandifolia* T. Cooke. Woods near Kokstad.
  7. *ciliatus* E.M. Inanda and near Durban.
  8. *villosus* T. Cooke. Entumeni, Zululand.
  9. *densiflorus* T. Cooke. Mooi River.
  10. *tysoni* Guerke. Dumisa.
  11. *laxiflorus* Bth. Coast and Midlands. Common.
  12. *kuntzei* Guerke. Clairmont.
  13. *grandidentatus* Guerke. Umkomaas, 4-5,000 ft.
  14. *cooperi* T. Cooke. Byrnc, 3,000 ft. in bush.
  15. *coloratus* E.M. Coast and Midlands. Common.
  16. *zuluensis* T. Cooke.
  17. *purpuratus* Harv. Umzinyati Falls. Coast.
  18. *natalensis* Guerke. Midlands and Zululand.
  19. *hirtus* Bth. Near Mooi River.
  20. *nummularius* Briq. Camperdown, Zululand.
  21. *neochilus* Schltr.
  22. *esculentus* N.E.Br. Inanda. Cultivated by natives.  
 "umBondwe."
  23. *pachyphyllus* Briq. Karkloof.
  24. *elegantulus* Briq. Karkloof.
  25. *tomentosus* Bth. Common.
  26. *woodii* Guerke. Impolweni. Pinetown.
  27. *dolicopodus* Briq. Karkloof.
  28. *grallatus* Briq. Mount Frere.
  29. *transvaalensis* Briq. Weenen County.
  30. *draconis* Briq. Biggarsberg. Botha's Hill.
  31. *peglerae* T. Cooke. Zululand.
  32. *bolusii* T. Cooke. Weenen County. Uncertain.
  33. *fruticosus* L'Hérit. Ngoya, Zululand.

6. **COLEUS** Lour.

1. *pentheri* Guerke. Byrne. Thornveld. Mooi River.
2. *sp.* Ngoya, Zululand. Cultivated by natives.
3. *sp.* Camperdown.

7. **PYCNOSTACHYS** Hook.

1. *reticulata* Bth. Coastbelt.
2. *purpurascens* Briq. Mount Frere, 4,300 ft.

8. **AEOLANTHUS** Mart.

1. *parvifolius* Bth. Inanda.
2. *canescens* Guerke. Van Reenen.

9. **ENDOSTEMON** N.E.Br.

- obtusifolius* Coastbelt.

10. **HYPTIS** Jacq.

- pectinata* Pour. Coast and Midlands. Common.

11. **IBOZA** N.E.Br. "iBoza."

1. *riparia* N.E.Br. Coastbelt. Common around bush.
2. *galpini* N.E.Br. Ubombo, Zululand. Open grassveld.

12. **MENTHA** L.

1. *longifolia* Huds.
2. *viridis* L.
3. *aquatica* L. Common all over. Near water.

13. **SATUREIA** L. (*Micromeria* Bth.)

- pilosa* (Bth.)

14. **SALVIA** L. (Margins of bush, Thornveld and Grassveld.)

1. *tysoni* Skan. Drakensberg and Zululand.
2. *galpinii* Skan. South Downs, 4-5,000 ft.
4. *sisymbriifolia* Skan. Colenso. Ingoma.
3. *stenophylla* Burch. Midlands.
5. *repens* Burch. Charlestown. Buffalo Valley
6. *monticola* Bth. Around Kokstad.
7. *rudis* Bth.
8. *woodii* Guerke. Midlands.
9. *cooperi* Skan. South Downs, 4-5,000 ft.

15. **ACROTOME** Bth.

- hispida* Bth. Doubtful.

16. **STACHYS**. (Margins of bush and grassveld.)

1. *grandifolia* E.M. Polela.
2. *albiflora* N.E.B. Drakensberg.
3. *kuntzei* Guerke. Van Reenen.
4. *galpini* Briq. Coast and Midlands.
5. *transvaalensis* Guerke. Doubtful.
6. *rudatisii* Skan. Dumisa.
7. *parilis* N.E.B. Drakensberg.
8. *aethiopica* L. Coastbelt.
- aethiopica* var *glandulifera* Skan. Midlands.
9. *leptoclada* Briq. Bluekranz River, 3,700 ft.



10. *cymbalari* Briq. var *alba*. Richmond.
11. *nigricans* Bth. Common. Coast and Midlands. "uMusa."
12. *sessilis* Guerke. Inchanga.
13. *erectiuscula* Guerke var *natalensis* Skan. Newcastle.
14. *rivularis* Wood & Evans. Mooi River.
15. *hyssopoides* Burch. Tugela Valley.
16. *caffra* E.M. Midlands and Drakensberg
17. *tubulosa* MacOwan.
18. *obtusifolia* MacOwan. De Beer's Pass. Doubtful.
19. *natalensis* Hochst. Table Mountain. Doubtful.
20. *sessilifolia* E.M. Doubtful.
21. *bolusii* Skan. Drakensberg. Shady kloofs, 6,500 feet.
17. **LEUCAS** Burm.
  1. *glabrata* R.Br. Midlands. Thorn veld.
  2. *martinicensis* R.Br. Weed. Common all over.
18. **LASIOCORYS** Bth.
  - capensis* Bth. Mooi River Valley.
19. **LEONOTIS** R.Br. "umCwili." "inTshwala benyoni."
  1. *leonurus* R.Br. Common all over. "Munyamunyane."
    - leonurus* var *albiflora*. Rarer.
  2. *latifolia* Guerke. Midlands and Drakensberg.
  3. *dysophylla* Bth. Midlands.
  4. *intermedia* Lindl var *natalensis* Skan. Durban and Bushman's River.
  5. *laxifolia* MacOwan. Karkloof, Ismont.
  6. *dubia* E.M. Inanda.
20. **TEUCRIUM** L.
  1. *capense* Thb. Common
  2. *riparium* Hochst. Common.
21. **AJUGA** L.
  - ophrydis* Burch. Common all over.

### FAMILY 133—SOLANACEAE.

Herbs, shrubs or rarely trees. Leaves alternate, sometimes in pairs or verticillate. Flowers hermaphrodite, regular or slightly irregular. Calyx 4—5, rarely 6—7 toothed or lobed. Corolla 4—5, rarely 6—7 lobed. Stamens as many as corolla lobes and alternating with them. Ovary superior 2 celled, rarely 3—5 celled, with partition oblique to the medium plane of the flower. Ovules axile, usually numerous. Style simple. Stigma usually 2 lobed. Fruit a berry or capsule. Seed endospermic. 7 genera 31 species.

1. Ovary or fruit 3—5 celled. 2.
- Ovary 2 celled or many celled by cultivation. 3.
2. Calyx enlarged after flowering. Fruit smooth.

**4 NICANDRA.**

Calyx deciduous excepting the base. Fruit usually thorny.

- |   |                     |
|---|---------------------|
|   | <b>6 DATURA.</b>    |
| 3. Fruit capsular.                              | <b>7 NICOTIANA.</b> |
| Fruit a berry.                                  | <b>4</b>            |
| 4. Anthers opening by pores.                    | <b>1 SOLANUM.</b>   |
| Anthers opening by longitudinal slits.          | <b>5</b>            |
| 5. Calyx not much enlarged in the fruit shrubs. | <b>5 LYCIUM.</b>    |
| Calyx much enlarged in fruit.                   | <b>6</b>            |
| 6. A shrub. Flowers in clusters.                | <b>3 WITHANIA.</b>  |
| Herbaceous or suffruticose. Flowers solitary.   | <b>2 PHYSALIS.</b>  |
- 
1. **SOLANUM** L. "umTuma."
    1. **nigrum** L. Common weed. "umSobo."
    2. **exasperatum** E.M.
    3. **geniculatum** E.M. Coastbelt.
    4. **bifurcum** Hochst. Inanda and Zululand.
    5. **giganteum** Jacq. Coastbelt Doubtful.
    6. **auriculatum** Ait. Coast and Midlands. "umTotovane."
    7. **aculeastrum** Dunal. Coastbelt.
    8. **sodomaicum** Dunal. Introduced weed.
    9. **aculeatissimum** Jacq. Coast to Drakensberg.
    10. **ferrugineum** Jacq. (**torvum** Sw.) Coastbelt.
    11. **duplosinuatum** Klotsch. Grassveld. Coast and Midlands.
    12. **acanthoideum** E.M. Bush. Coast and Midlands.
    13. **didymanthum** var **pluriflorum** Dunal. Coastbelt.
    - didymanthum** var **spinosa** C. H. Wright.
    14. **panduraeforme** E. M. Coast and Midlands. Common.
    15. **tomentosum** L.
    16. **indicum** L. Inanda.
    17. **incanum** L. Umhlanga.
    18. **capense** L. Midlands. Common. "isiTumana."
    19. **sodomaeoides** O. Kuntze. Glencoe.
    20. **urosepalum**. U. Dummer. Alexandra County, 2,000 ft.
  2. **PHYSALIS** L. "uGqumugqumu."
    1. **peruviana** L. Introduced weed. Common. "Cape Gooseberry."
    2. **minima** L. Coastbelt.
  3. **WITHANIA** Pauq. "ubuVimba."
    - somnifera** Dunal. Coast and Midlands.
  4. **NICANDRA** Adans.
    - physaloides** Gaertn. Common weed.
  5. **LYCIUM** L.
    1. **acutifolium** E. M. Coast and Midlands.
    2. **pendulinum** Miers. Mooi River Valley.
    3. **natalense** O. Damin.

**6. DATURA L.**

1. *stramonium* L. Common weed. "Stinkblaar." "Yoni."
2. *fastuosa* L. Near Durban. Introduced.

**7. NICOTIANA L.**

1. *glauca* R. Graham. Small tree. Introduced?
2. *tabacum* L. Cultivated.

**FAMILY 134—SCROPHULARIACEAE.**

Herbs, shrubs or trees, sometimes hemiparasitic on roots. Leaves exstipulate. Flowers hermaphrodite, usually irregular. Petals 4—5, united below, imbricate in bud. Stamens usually 4, rarely 2, 3 or 5. Anthers 1 or 2 celled. Ovary superior 2 celled, the partition at right angles to the median plane of the flower, rarely 1 celled or (*Bowkeria*), 3 celled. Style simple or 2 cleft. Fruit usually capsular. Seeds few or many, endospermic. 31 genera 112 species.

1. Posterior lip or upper lobes of corolla exterior in the bud. 2.  
Posterior lip or upper lobes of corolla overlapped in the bud  
by one or both the lateral lobes. 20.

2. Leaves all alternate or rarely opposite. Corolla almost regular.  
Tube long. Lobes nearly equal. **1 PELIOSTOMUM.**

- Leaves (at least the lower) opposite or all radical. 3.

3. Corolla with 1—2 spurs, pouches or pits. 4.

- Corolla without any pocket or spur. 6.

4. Corolla tube very short or obsolete. Limb rotate or concave.

**2 DIASCIA.**

- Corolla with a distinctly developed tube. 5.

5. Posterior lip entire or emarginate. Anterior lip 4 lobed.

**3 NEMESIA.**

- Posterior lip 2 lobed. Anterior lip 3 lobed. **4 DICLIS.**

6. Shrubs (in one case epiphytic) or trees. Flowers in cymes or  
cymose panicles or fascicles. Occasionally solitary with  
2 bracteoles on the pedicel. 7.

- Herbs or undershrubs. Flowers solitary or in heads, spikes,  
racemes, or racemose panicles. 12.

7. Corolla tube short and wide. 8.

- Corolla tube long and narrow. 9.

8. Leaves opposite. Calyx shortly 5 cleft valvate.

**9 ANASTRABE.**

- Leaves usually ternately whorled. Calyx 5 parted imbricate in  
the bud. **10 BOWKERIA.**

9. Leaves decussate, fleshy. Epiphyte. **5 DERMATOBOTRYS.**

- Leaves not decussate. Trees and shrubs. 10.

10. Calyx 3—5 cleft. Anther halves divergent. **6 HALLERIA.**

- Calyx 5 parted. Anther halves parallel or nearly so, separate. 11

11. Anthers protruding. Fruit a capsule. **8 PHYGELIUS.**  
 Anthers included in corolla tube. Fruit a berry. **7 TEEDIA.**
12. Anther cells confluent hence anthers apparently 1 celled.  
 Calyx 5 parted or 2 lipped. **13.**  
 Anthers 2 celled, or if rarely 1 celled, then calyx subequally  
 5 lobed (not 5 parted). **18.**
13. Calyx 2 lipped or 2 parted. Segments 3 lobed and 2 lobed re-  
 spectively. **15 ZALUSIANSKYA.**  
 Calyx equally 5 cleft or 5 parted. **14.**
14. Corolla tube very short or obsolete. **15.**  
 Corolla tube distinctly developed, usually long. **16.**
15. Corolla 2 lipped. Capsule 2 cleft. Flowers solitary. Leaves  
 radical. **2 DIASCIA.**  
 Corolla nearly regular. Capsule 4 cleft. Flowers in racemes.  
 Leaves opposite (under *Sutera* Roth).
- 13 SPHENANDRA.**
16. Bracts adnate to pedicels or calyx. **14 PHYLLOPODIUM.**  
 Bracts free from pedicels or calyx. **17.**
17. Calyx open or nearly open in bud, ebracteate or surrounded  
 by narrow bracts. **11 MANULEA.**  
 Calyx imbricate in bud or surrounded by broad bracts. **12 SUTERA.**
18. Fertile stamens 2, with or without 2 staminodes. **18 ILYSANTHES.**  
 Fertile stamens 4, rarely 3. **19.**
19. Corolla 2 lipped. Leaves opposite. **16 MIMULUS.**  
 Corolla nearly regular. Leaves all radical. **17 LIMOSELLA.**
20. (a) Calyx glume-like, fringed or ciliate. **19a GLUMICALYX.**  
 (b) Stamens 2. Calyx not glume like. **19 VERONICA.**  
 (c) Stamens 4. Calyx not glume like. **21.**
21. Anthers 1 celled (with only 1 half developed). **22.**  
 Anthers 2 celled in at least 2 of the 4 stamens but 1 half  
 sometimes smaller than the other and barren. **26.**
22. Corolla almost 1 lipped with 3 distinct lobes. **29 HYOBANCHE.**  
 Corolla regular or 2 lipped with 4—5 lobes. **23.**
23. Corolla subequally 5 lobed. **25 BUECHNERA.**  
 Corolla more or less 2 lipped. Lobes unequal. **24.**
24. Corolla tube abruptly bent above the middle. **21 STRIGA.**  
 Corolla tube straight or gradually curved. **25.**
25. Calyx 5-dentate. **25 CYCNIUM.**  
 Calyx 5 cleft or deeply 5 lobed. **27 RHAMPHICARPA.**
26. Anther cells very unequal, 1 fertile, 1 barren, or almost so. **27.**  
 Anther cells equal or 1 narrower, both fertile. **29.**
27. Leaves scale like, yellow or reddish. **28 HARVEYA.**  
 Leaves well developed, green. **28.**



28. Climbing herb or shrub. **22 BUTTONIA.**  
 Erect branched, rigid herbs. **23 SOPUBIA.**
29. Corolla tube short, equalling or not much exceeding the calyx. **20 MELASMA.**  
 Capsule sub-globose. **24 GRADERIA.**  
 Corolla tube long, distinctly exceeding the calyx. Capsule  
 acute or acuminate. (*Bopusia* Presl.)
- 1. PELIOSTOMUM** Bth. "inTsindwane."  
*calycinum* N.E.Br. Coastbelt. Used by the natives for making scent balls.
- 2. DIASCIA** Link & Otto. (Mostly grassveld herbs.)  
 1. *capsularis* Bth.  
 2. *cordata* N.E.B. Midlands and Drakensberg.  
 3. *expolita* Hiern. Ismont, 2,000 ft.  
 4. *purpurea* N.E.B. Drakensberg.  
 5. *racemulosa* Bth. Near Umzimkulu River.  
 6. *rigescens* E.M. Near Harding and Drakensberg.  
 7. *rotundifolia* Hiern. Between Maritzburg and Greytown.
- 3. NEMESIA** Vent. (Mostly grassveld herbs.)  
 1. *albiflora* N.E.B. Midlands and Drakensberg.  
 2. *cynanchifolia* Bth. Coast and Midlands.  
 3. *flanagani* Hiern. Highlands and Drakensberg, 5,000 ft.  
 4. *foetens* Vent. Coast to Drakensberg. Common.  
 5. *floribunda* Lehm. Coast to Drakensberg.  
 6. *melissaefolia* Bth. Midlands and Drakensberg.  
 7. *anfracta* Hiern. Umgeni. Mount Insiswa.
- 4. DICLIS** Bth. Herbs.  
 1. *reptans*. Common all over in wet places.  
 2. *petiolaris* Bth. Rare.
- 5. DERMATOBOTRYS** Bolus.  
*saundersiae* Bolus. Entumeni, Zululand. Epiphytic on trees.
- 6. HALLERIA** L. Shrubs or small trees. "Minza." "umBinza."  
 "Nobibi." "Nondomela."  
 1. *lucida* L. Coast and Midlands. Common in bush.  
 2. *ovata* Bth. Fairfield, Alexandra County, 2,800 ft.
- 7. TEEDIA** Burch.  
*lucida* Rudolphi. Midlands. Small shrub.
- 8. PHYGELIUS** E. M. (Undershrubs.)  
 1. *aequalis* Harv. Midlands. Common in moist places.  
 2. *capensis* E. M. Mont Aux Sources, 6,000 ft.
- 9. ANASTRABE** E. M. "umDuma."  
*integerrima* E. M. Coastbelt. Shrub or tree.  
*integerrima* var *serrulata* Hiern.
- 10. BOWKERIA** Harv. Shrubs or trees.  
 1. *gerrardiana* Harv. Midlands and Drakensberg, 6,500 ft.  
 2. *natalensis* Schinz. Insiswa, 6,000 ft.  
 3. *simpliciflora* MacOwan. Van Reenen.

4. *triphylla* Harv. var *pubescens* O. Kuntze. Van Reenen.
5. *velutina* Harv. 'Ndwandwe.
11. **MANULEA** L. (Grassveld herbs or undershrubs.)
  1. *crassifolia* Bth. Midlands and Drakensberg.
  2. *parviflora* Bth. Coast and Midlands.
  3. *thyrsiflora* L.f. var *versicolor* O. Kuntze. Coast.
12. **SUTERA** Roth. (Grassveld herbs or shrubs around bush.)
  1. *arcuata* Hiern. Coldstream, 5,500 ft.
  2. *atropurpurea* Hiern. Near Weenen, 3-4,000 ft.
  3. *aurantiaca* Hiern. Drakensberg.
  4. *bracteolata* Hiern.
  5. *breviflora* Hiern. Polela. South Downs.
  6. *brunnea* Hiern. Zululand.
  7. *burkeana* Hiern. Zululand.
  8. *brachiata* Roth. Doubtful.
  9. *compta* Hiern. Greytown.
  10. *crassicaulis* Hiern. Buffalo Valley.  
*crassicaulis* var *purpurea*. Top of Mont Aux Sources,  
 11,000 ft.
  11. *floribunda* O. Kuntze. Coast to Drakensberg. Common.
  12. *grandiflora* Hiern.
  13. *humifusa* Hiern. Noodsberg.
  14. *kraussiana* Hiern. Coast to Midlands.  
*kraussiana* var *latifolia*. Avoca, 100 ft.
  15. *luteiflora* Hiern. Newcastle, Colenso.
  16. *montana* S. Moore. Biggarsberg.
  17. *natalensis* O. Kuntze. Near Durban.
  18. *neglecta* Hiern. Drakensberg.
  19. *noodsbergensis* Hiern. Noodsberg.
  20. *pallescens* Hiern. Hills beyond Port Shepstone.
  21. *palustris* Hiern.
  22. *pinnatifida* O. Kuntze var *subcanescens* Hiern.
  23. *platysepala* Hiern. Entumeni, Zululand.
  24. *polensis* Hiern. Drakensberg.
  25. *polyantha* O. Kuntze. Van Reenen.
  26. *pristisepala* Hiern. Drakensberg, Mont Aux Sources.
13. **SPHENANDRA** Benth.  
*viscosa* Benth. Drakensberg.
14. **PHYLLOPODIUM** Bth.  
*bracteatum* Bth. Near Durban. Annual herb.
15. **ZALUZIANSKYA** F. W. Schmidt. (Herbs or undershrubs.)
  1. *capensis* Walp. Midlands and Drakensberg.  
*capensis* var *tenuifolia*. Tugela Valley.
  2. *distans* Hiern. Drakensberg.
  3. *flanagani* Hiern. Mont Aux Sources, 9,500 ft.
  4. *gosetoides* Diels. Drakensberg, 8,550 ft.

- 5. *maritima* Walp. Coast to Drakensberg.  
*maritima* var *pubens*. Zululand.  
*maritima* var *grandiflora*. Drakensberg.  
*maritima* var *breviflora*. Drakensberg.
- 6. *microsiphon* K. Schum. Van Reenen.
- 7. *ovata* Walp. Midlands and Drakensberg.
- 8. *montana* Hiern. (Herb.)
- 16. **MIMULUS** L.  
*gracilis* R.Br. Coast to Drakensberg. Common.
- 16a. **MONIERA** B. Juss.  
*cuneifolia* Michaux. Umlalasi, Zululand.
- 17. **LIMOSELLA** L. (Herbs.)  
1. *aquatica* L. Coast to Drakensberg. Common in wet places.  
2. *grandiflora* Bth. Midlands.  
3. *longiflora* O. Kuntze. Van Reenen.  
4. *maior* Diels. Upper districts.  
5. *tenuifolia* Nutt. Van Reenen.
- 18. **ILYSANTHES** Rafin. (Herbs.)  
1. *riparia* Rafin. Coast to Midlands. Wet places.  
2. *conferta* Hiern. Rovelo Hills. In shallow pools.  
3. *nana* Eng. Coast to Drakensberg. Wet rocks.  
4. *longiflora* O. Kuntze.
- 19. **VERONICA**.  
*anagallis* L. Upper Tugela. Cosmopolitan.
- 19a. **GLUMICALYX** Hiern.  
*montanus* Hiern. Mont Aux Sources.
- 20. **MELASMA** Berg. Hemiparasites in grassveld.  
1. *capense* Hiern. Upper districts.  
2. *indicum* Wettst. Midlands and Upper districts.  
3. *natalense* Hiern. Midlands.  
4. *orobanchoides* Eng. Coast and Midlands.  
5. *scabrum* Berg. Midlands and Drakensberg. Common.  
6. *sessiliflorum* Hiern. Coast and Midlands.
- 21. **STRIGA** Lour. (Hemiparasites in Grassveld.)  
1. *elegans* Bth. Midlands and Drakensberg.  
2. *forbesii* Bth. Inanda. Usually in mealie fields.  
3. *junodii* Schinz.  
4. *lutea* Lour. Parasitic on mealie. "Witchweed."  
"IsOna."  
5. *orobanchoides* Bth. Coast and Midlands.  
6. *thunbergii* Bth. Coast and Midlands. Zululand.
- 22. **BUTTONIA** McKen.  
*natalensis* McKen. Climber. Coastbelt and Zululand.

23. **SOPUBIA** Hamilt. (Herbs.)  
 1. *cana* Harv. Midlands, wet places.  
 2. *simplex* Hochst. Coast to Drakensberg. Wet places.  
 3. *trifida* Hamilt. Midlands.
24. **GRADERIA** Benth. (*Bopusia* Presl.) (Herbs.)  
*scabra* Bth. Coast and Midlands. Common.
25. **BUECHNERA** L. (*Buchnera* L.) (Hemiparasites.)  
 1. *dura* Bth. Coast to Drakensberg. Common.  
 2. *glabrata* Bth. Midlands.
26. **CYCNium** E. M. (Hemiparasites in Grassveld.)  
 1. *adonense* E. M. Coast and Midlands. Common.  
 2. *huttoniae* Hiern. Howick.  
 3. *racemosum* Bth. Midlands and Drakensberg.
27. **RHAMPHICARPA** Bth. (Hemiparasites in Grassveld.)  
 1. *fistulosa* Bth. Midlands.  
 2. *tubulosa* Bth. Coast and Midlands.  
 3. *serrata* Klotsch. Alexandra County.
28. **HARVEYA** Hk. (Parasites.)  
 1. *purpurea* Harv. Klip River.  
 2. *bolusii* Kuntze. Near Umlaas River.  
 3. *coccinea* Schltr. Berea, near Durban. Ngoya.  
 4. *squamosa* Steud. Sand dunes on coast.  
 5. *speciosa*. Coast to Drakensberg.
29. **HYOBANCHE** L. (Parasites.)  
*sanguinea* Thb. Umzumbi, 100ft.

## FAMILY 135—SELAGINACEAE.

Herbs, undershrubs or shrubs, often included as a tribe of the **Scrophulariaceae**. Leaves alternate or rarely the lower opposite. Flowers hermaphrodite, irregular. Sepals 5. Petals 5 united. Stamens 4. Anthers 1 celled. Ovary superior, 2 celled, or 1 celled by abortion. Ovules 1 in each cell, pendulous, anatropous. Fruit indehiscent or separating into 2 one-seeded nutlets. Endosperm fleshy. 3 genera 32 species.

1. Corolla 4 lobed, deeply slit in front. Calyx spathaceous subhyaline entire or 2 parted. **1 HEBENSTREITIA.**

Corolla 5 lobed not deeply slit. Calyx 3 or 5, rarely 2 parted. 2.

2. Calyx with 2 or 3 segments. **2 WALAFRIDA.**

Calyx with 5 segments. **3 SELAGO.**

1. **HEBENSTREITIA** L. (Mostly Grassveld herbs.)

1. *polystachya* Harv. Midlands and Drakensberg. In vleis.  
 2. *oatesii* Rolfe. Doubtful.  
 3. *elongata* Bolus. Midlands.  
 4. *comosa* Hochst. Coast and Midlands. Common.  
 5. *fruticosa* Sims. Midlands and Drakensberg.



6. *dentata* L. Midlands.
7. *integrifolia* L. Sandy flat near Durban.
2. **WALAFRIDA** E.M.
  1. *densiflora* Rolfe. Midlands.
  2. *nachtigali* Rolfe.
  3. *tenuifolia* Rolfe. Colenso.
3. **SELAGO** L. (Mostly Grassveld herbs.)
  1. *aggregata* Rolfe. Near Greytown.
  2. *capitellata* Schltr. Imbazane.
  3. *cooperi* Rolfe. Rovelo Hills, 7,000 ft.
  4. *corymbosa* L.
  5. *dielsii* Rolfe. Alexandra County.
  6. *hyssopifolia* E.M. Very common. Coast and Midlands.
  7. *lepidioides* Rolfe. Ifafa. 2,500 ft.
  8. *lithospermoides* Rolfe. Rovelo Hills, 7,000 ft.
  9. *longipedicellata* Rolfe. Entumeni, Zululand.
  10. *longiflora* Rolfe. Illovo, 3,000 ft.
  11. *monticola* Wood & Evans. Drakensberg.
  12. *natalensis* Rolfe. Midlands and Zululand.
  13. *pachypoda* Rolfe. Amawakqa, 6,800 ft. Curry's Post.
  14. *peduncularis* E.M. Coastbelt.
  15. *sandersoni* Rolfe. Mont Aux Sources 7-8,000 ft.
  16. *saundersiae* Rolfe.
  17. *schlechteri* Rolfe. Curry's Post, 4-5,000 ft.
  18. *trinervis* E.M. Coastbelt.
  19. *villicalyx* Rolfe. Midlands. Karkloof.
  20. *immersa* Rolfe. Giants' Castle, 8-10,000 ft.
  21. *woodii* Rolfe. Murchison, 1-2,000 ft.
  22. *flanagani* Rolfe. Giants' Castle, 9-10,000 ft.

### FAMILY 136—BIGNONIACEAE.

Shrubs or trees. Leaves usually opposite and compound ex-stipulate. Flowers more or less irregular, hermaphrodite. Sepals united below. Petals united below. Stamens 4 or 5, rarely 2. Ovary 2 celled, or more rarely 1 celled, with parietal placentas. Ovules numerous. Style 1. Stigma of 2 lobes. Fruit capsular or fleshy indehiscent. Seeds exendospermic. 2 genera 2 species.

1. Fruit indehiscent. Ovary 1 celled. Seeds not winged.

#### 2 KIGELIA.

Fruit a capsule. Ovary 2 celled. Seeds winged.

#### 1 TECOMARIA.

1. **TECOMARIA** Spach.

*capensis* Spach. Coastbelt and Lower Midlands. Shrub.  
Rambling.

- 2. KIGELIA** DC. "iBelelendhlovu." "umFongote." "umZingulu."  
**pinnata** DC. Tree, 20-50 ft. high. Coastbelt and Tugela  
 Valley. Near Greytown.

### FAMILY 137—PEDALIACEAE.

Herbs (rarely shrubs) with glandular hairs. Leaves opposite (at least the lower ones), simple. Flowers irregular, hermaphrodite. Calyx 5 partite. Petals 5 united below. Stamens 4 fertile, 1 sterile. Ovary superior 2—8 celled with 2—many ovules in each cell. Style 1. Stigmas 2. Fruit a capsule or nut. Seeds with thin endosperm. 2 genera 2 species.

1. Capsule with 2 horns.

#### 2 CERATOTHECA.

Capsule without horns.

#### 1 SESAMUM.

#### 1. SESAMUM L.

**indicum** L. Coastbelt. Cultivated by the natives.

#### 2. CERATOTHECA Endl. "umDonqa."

**triloba** E.M. Common weed. Coast and Midlands.

### FAMILY 138—GESNERACEAE.

Herbs or undershrubs. Leaves simple, exstipulate. Flowers hermaphrodite, irregular. Sepals united below. Petals united below. Fertile stamens 2. Ovary superior 1 celled with parietal placentas or incompletely 2—4 celled. Ovules many. Style 1. Fruit a capsule. Seeds endospermic. 1 genus 15 species.

**STREPTOCARPUS** Lindl. (Herbs mostly stemless, in moist shady places.)

1. **daviesii** N.E.Br. Qudeni Forest, 6,000 ft.
2. **polyanthus** Hk. Coast to Drakensberg. Common.
3. **haygarthii** N.E.Br. Midlands and Zululand.
4. **saundersii** Hk. Inanda.
5. **tubiflos** C.B.Cl. Inanda, Ingoma.
6. **cooperi** C.B.Cl. Van Reenen (—**tubiflos** C.B.Cl. partly).
7. **wendlandii** Sprenger. Zululand.
8. **pusilla** Harv. Midlands and Drakensberg
9. **rexii** Lindl. Midlands and Zululand. Common.
10. **fanniniae** Harv. Midlands.
11. **woodii** C.B.Cl. Midlands.
12. **lutea** C.B.Cl. Tugela River.
13. **prolixa** C.B.Cl. Inanda.
14. **angustilobus** N.E.B. Qudeni Forest.
15. **pentherianus** Fritsch. Colenso.

### FAMILY 139—LENTIBULARIACEAE.

Herbs aquatic or terrestrial, but always in wet places, often with bladders or traps. Flowers irregular, hermaphrodite. Calyx

2 or 5 parted. Corolla 2 lipped, spurred or saccate. Stamens 2. Anthers 1 celled. Ovary superior, 1 celled with free central placenta. Ovules several or many. Fruit a capsule. Seeds exendospermic. 2 genera 10 species.

Calyx of 2 sepals.

### 1 UTRICULARIA.

Calyx deeply 5 partite. Bladders tubular with 2 spirally twisted arms.

### 2 GENLISEA.

1. **UTRICULARIA.** (In vleis or streams. Bladders usually present.)

1. *livida* E.M. Terrestrial. Coast and Midlands. Common.
2. *tribracteata* Hochst. Terrestrial. Coast and Midlands.
3. *sandersoni* Oliv. Terrestrial. Midlands.
4. *prehensilis* E.M. Terrestrial. Coastbelt.
5. *stellaris* L. Aquatic. Coastbelt and Midlands.
6. *foliosa* L. Aquatic.
7. *elevata* Kam. Near Durban.
8. *exoleta* R.Br. Aquatic. Coast to Drakensberg.
9. *engleri* Kam. Drakensberg.

2. **GENLISEA** A. St. Hil.  
*hispidula* Stapf.

## FAMILY 140—ACANTHACEAE.

Herbs or shrubs. Leaves opposite, simple exstipulate. Flowers more or less irregular, hermaphrodite, 4—5 merous. Petals united below. Fertile stamens 2 or 4. Style simple. Stigma entire or 2 lobed. Ovary superior, 2 celled. Fruit a capsule, more rarely a drupe. Seeds 2 or more. Funicle with an outgrowth (except in *Thunbergia*). Seeds mostly exendospermic. 22 genera 91 species.

1. Corolla with contorted aestivation (i.e., no lobe wholly within or wholly outside the others in the bud). 2.

Corolla imbricate, but not contorted in the bud. 6.

2. Ovules 2 in each cell collateral. Funicle without a distinct outgrowth. Stamens 4. Bracteoles 2 large, enclosing the small calyx.

### 1 THUNBERGIA.

Funicle with an outgrowth distinct, usually hook-shaped.

Stamens 4 (or 2 in *Chaetacanthus*). Seeds covered with fine white hairs. Corolla nearly regular. (*Ruellieae*). 3.

3. Stamens 2 with or without rudiments of 2 others.

### 4 CHAETACANTHUS.

Stamens 4, all fertile. 4.

4. Fruit compressed from back to front, 2—4 seeded. Calyx segments very unequal, the posticous ovate, bractlike.

### 5 PHAULOPSIS.

Fruit terete or 4 angled. Calyx equally lobed or obscurely 2 lipped. 5.

5. Surface of pollen grains honeycombed. Ovules 3 or more in each cell. Capsule usually more than 4 seeded.

**2 RUELLIA.**

Pollen grains longitudinally ribbed. Ovules 2 in each cell.

Capsule with 4 or fewer seeds.

**3 DYSCHORISTE.**

6. Corolla 1 lipped, tube short. 7.

Corolla 2 lipped or subequally 5 lobed. 9.

7. Calyx 4 partite to the base. Corolla wanting posticous lip.

**6 BLEPHARIS.**

Calyx 5 partite to the base. Corolla split down posticous face so that lip has 5 lobes all on one side. 8.

8. Sepals all similar, posticous 1 nerved. 7 **SCLEROCHITON.**

Posticous sepal broader, 2 nerved, often 2 toothed.

**8 CROSSANDRA.**

9. Stamens 4, all fertile. 10.

Stamens 2 fertile. 11.

10. Flowers in dense compound heads. Ovules 3 in each cell.

**9 CRABBEA.**

Flowers in racemes, spikes or heads. Ovules 2 in each cell.

Capsule long stalked.

**10 ASYSTASIA.**

11. Corolla with 5 lobes, not very unequal. 12.

Corolla 2 lipped. 13.

12. Calyx segments 5 sub-equal. Corolla curved. 11 **MACKAYA.**

Calyx large. 4 partite to base; 2 lateral segments narrower.

**12 BARLERIA.**

13. Pollen reticulated. Seeds with hygroscopic hairs.

**12 BARLERIA.**

Pollen banded, never reticulated. Seeds without hygroscopic hairs. 14.

14. Anthers 1 celled. 15.

Anthers 2 celled. 16.

15. Staminodes 2. 13 **RUTTYA.**

Staminodes none. 2 bracts to the flower. 21 **HYPOESTES.**

16. Lower anther cells tailed (except in *Justicia campylostemon*). 17.

Pollen grains with rows of tubercles.

Lower anther cells not tailed or very slightly tailed in *Adhatoda* which has no rows of tubercles on the pollen. 19.

17. Corolla tube slender, much longer than the limb.

**16 SIPHONOGLOSSA.**

Corolla tube not much longer than the limb. 18.

18. Seeds usually 4 to the capsule, rough or tubercled.

**14 JUSTICIA.**

Seeds 2 to the capsule, smooth, usually shining.

**15 MONECHMA**

19. Anther cells at equal heights or one a very little below. 20.

One anther cell completely below the other. 21.



20. Bracts conspicuous, longer than calyx. Inflorescence congested. Corolla tube broad. Capsule 1—2 seeded.

**17 ADHATODA.**

Bracts inconspicuous, shorter than calyx. Corolla tube long, linear. Capsule 4 seeded.

**18 RHINACANTHUS.**

21. Bracts rather small. Flowers not appearing as though enclosed between two opposite bracts.

**19 ISOGLOSSA.**

Bracts longer than the calyx. 2 bracts to the flower, one of which belongs to an imperfect second flower.

22.

22. Stamens inserted at the throat of the corolla. Fruit oblong, partition not separating from the valves.

**20 PERISTROPHE.**

Stamens inserted in the corolla tube. Fruit ovate, partition separating from the valves at maturity.

**22 DICLIPTERA.**

- 1. THUNBERGIA** L.f. (In Grassveld or around margins of bush).

1. *natalensis* Hk. Coast and Midlands. Shrublet. Shady places.

2. *purpurata* Harv. Inanda and Zululand.

3. *venosa* C.B.Cl. Itafamasi, 1,500 ft., and Inanda. Straggler.

4. *hirtistyla* C.B.Cl.

5. *atriplicifolia* E.M. Common in grassveld all over.

*atriplicifolia* var *kraussi*. Common all over. "isiPondo."

6. *aspera* Nees. Near coastbelt.

7. *xanthotricha* Lindau. Alexandra County.

8. *dregeana* Nees. Twiner in coastbelt scrub. Common.

9. *alata* Bojer. Coastbelt scrub. Common climber.

10. *pondoensis* Lindau. Climber in coastbelt scrub.

- 2. RUELLIA** L. (Herbs or undershrubs, mostly around scrub).

1. *baurii* C.B.Cl. Coast and Midlands.

2. *malacophylla* C.B.Cl.

3. *ovata* Thb. Coastbelt.

4. *patula* Jacq. Coastbelt.

5. *woodii* C.B.Cl. Midlands.

6. *zeyheri* T.And. Mooi River.

- 3. DYSCHORISTE** Nees. (Mostly around scrub.)

1. *depressa* Nees. Coastbelt.

2. *trichocalyx* Lindau. Alexandra County, 1,800 ft.

- 4. CHAETACANTHUS** Nees. (Mostly in Grassveld.)

1. *burchellii* Nees. Coast and Midlands.

2. *glandulosus* Nees. Coastbelt and Thorn veld.

3. *persoonii* Nees. Muddy places around Durban Bay.

- 5. PHAULOPIS** Willd. (*Phayloopsis* Willd.) Scrub.

1. *longifolia* T. Thoms. Coastbelt.

2. *parviflora*. Coastbelt.

- 6. BLEPHARIS** Juss. (Around scrub and in grassveld.)

1. *angusta* And.

2. *boerhaavifolia* Pers. Coastbelt.
3. *dilatata* C.B.Cl. Ibisi River. Midlands.
4. *longispica* C.B.Cl. Estcourt.
5. *molluginifolia* Pers. Thorn veld. Midlands.
6. *pruinosa* Engl. Coastbelt.
7. *setosa* Nees.
7. **SCLEROCHITON** Harv.  
    *harveyanus* Nees. Inanda.
8. **CROSSANDRA** Salisb.  
    *greenstockii* S. Moore. Tugela Valley and Zululand.
9. **CRABBEA** Harv. (Mostly in Grassveld.)
  1. *hirsuta* Harv. Coast and Midlands.
  2. *nana* Nees. Midlands.
  3. *pedunculata* N.E.B. Inanda.
10. **ASYSTASIA** Blume. Ruderal or around scrub.
  1. *coromandeliana* Nees. Common. Coastbelt. Weed.
  2. *natalensis* C.B.Cl.
  3. *schimperii* T.And. Coastbelt.
  4. *varia* N.E.Br. Entumeni, Zululand.
11. **MACKAYA** Harv.  
    *bella* Harv. Coastbelt.
12. **BARLERIA** L. (Mostly around scrub.)
  1. *barbata* E.M.
  2. *cinereicaulis* N.E.B. Coast and Midlands.
  3. *elegans* S. Moore. Coastbelt.
  4. *gueinzii* Sond. Coastbelt.
  5. *macrostegia* Nees. Coastbelt.
  6. *meyeriana* Nees. Coastbelt and Midlands.
  7. *mucronata* Lindau.
  8. *obtusata* Nees. Common. Coast and Midlands.
  9. *ovata* E.M. Camperdown.
  10. *woodii* C.B.Cl. Coast and Midlands.
13. **RUTTYA** Harv.  
    *ovata* Harv. Common around coastbelt scrub.
14. **JUSTICIA** L. (Mostly in and around scrub.)
  1. *betonicoides* C.B.Cl. Coastbelt.
  2. *campylostemon* T. And. Common in bush. Coast and Midlands.
  3. *cheiranthifolia* C.B.Cl.
  4. *debilis* Lam.
  5. *flava* Vahl. Coastbelt.
  6. *kraussii* C.B.Cl. Coastbelt.  
    *kraussii* var *florida* C.B.Cl. Coastbelt.
  7. *petiolaris* E.M. Coastbelt and Zululand.
  8. *pulegioides* E.M. Coastbelt.
  9. *rotundifolia* E.M. Coastbelt.

10. *woodii* C.B.Cl. Noodsberg, 2,000 ft.
11. *anagalloides* T. And. Nondweni, Zululand.
15. **MONECHMA** Hochst. (Scrub and Thorn veld.)
  1. *atherstonei* C.B.Cl. Thorn veld.
  2. *bracteatum* Hochst. Coastbelt.
  3. *fimbriatum* C.B.Cl. Thorn veld.
16. **SIPHONOGLOSSA** Oerst.
  - sp. near *tubulosa* Lindau. Nkandhla, 4-5,000 ft.
17. **ADHATODA** Nees. (Scrub.) "isiPeka."
  1. *andromeda* C.B.Cl. Near Durban.
  2. *duvernoia* C.B.Cl. Coastbelt and Zululand.
  3. *natalensis* Nees. Coast and Midlands.
18. **RHINACANTHUS** Nees.
  - communis* Nees. Coastbelt.
19. **ISOGLOSSA** Oerst. (Mostly in and around scrub.)
  1. *ciliata* Lindau. Coastbelt.
  2. *cooperi* C.B.Cl. Coastbelt.
  3. *delicatula* C.B.Cl. Coastbelt.
  4. *eckloniana* Lindau. Umkomaas, 4-5000 ft.
  5. *grantii* C.B.Cl. Coast bush.
  6. *hypoestiflora* Lindau. Coastbelt.
  7. *macowani* C.B.Cl.
  8. *ovata* Lindau. Coastbelt.
  9. *stipitata* C.B.Cl. Coast bush.
  10. *woodii* C.B.Cl. Coastbelt. "umBomane."
20. **PERISTROPHE** Nees.
  1. *hensii* C.B.Cl. Coastbelt.
  2. *natalensis* T. And.
21. **HYPOESTES** R.Br.
  1. *aristata* R.Br. Drakensberg. De Beer's Pass, 5-6,000 ft.
  2. *antennifera* S. Moore.
  3. *phaylopsoides* S. Moore. Noodsberg, 2-3,000 ft.
  4. *triflora* Roem and Sch. Midlands and Zululand.
  5. *verticillaris* R.Br. Coast and Midlands.
22. **DICLIPTERA** Juss.
  1. *clinopodia* Nees. Valley of Umlaas.
  2. *heterostegia* Nees. Coastbelt.
  3. *quintasii* Lindau. Biggarsberg, 4-5,000 ft.
  4. *capensis* Nees. Ubombo, Zululand. Open grassveld.

## FAMILY 141—PLANTAGINACEAE.

Herbs, undershrubs or shrubs, in the latter case leaves opposite. Leaves sessile, exstipulate. Flowers solitary or in spikes or heads, small, regular, 4 merous. Corolla scarious, of united petals. Stamens 4, on the corolla. Filaments long. Anthers large, versa-

tile. Ovary superior, 2—4 celled. Sometimes only 1 cell fertile. Ovules many in each cell. Style simple. Stigma, filiform, entire. Fruit dry, 1—4 celled, 1—many seeded. Seeds with fleshy endosperm. 1 genus 5 species.

**PLANTAGO** L. (Annual or perennial herbs.)

1. **dregeana** Presl. Coastbelt.
2. **lanceolata** L. Midlands.
3. **major** L. Cosmopolitan.
4. **remota** Lam. Mooi River. In damp ground.
5. **longissima** Decne. Inanda.

## FAMILY 142—RUBIACEAE.

Herbs, shrubs or trees. Leaves opposite or whorled, entire, stipulate (stipules interpetiolar or sometimes leaf-like). Flowers regular or nearly so, hermaphrodite, or rarely unisexual. Petals united below. Stamens free, epipetalous, as many as corolla lobes. Ovary inverted. Styles 1 or several, united at the base. Seeds endospermic. 24 genera 85 species.

1. Ovules solitary in each ovary cell. (**Coffeoideae**). 2.  
Ovules 2 or more in each ovary cell. (**Cinchonoideae**). 17.
2. The (inverted) ovules pendulous or descending, and therefore micropyle superior. Radicle of embryo superior. 3.  
The (inverted) ovules basal or ascending. Micropyle inferior. Radicle inferior. 8.
3. Corolla with imbricate, sometimes contorted aestivation. Shrubs or trees. 4.  
Corolla with valvate aestivation. 5.
4. Corolla with contorted aestivation. Calyx with 2 enlarged segments after flowering. Coloured in the fruit.

### 11 ALBERTA.

Corolla with imbricate but not contorted aestivation. Calyx 4 toothed, not enlarged and coloured in fruit. Flowers in dense heads.

### 1 CEPHALANTHUS.

5. Herbs. 6.  
Shrubs or trees. 7.
6. Ovary 1—2 celled. Fruit dry. Leaves opposite. Stigma entire.

### 10 PENTANISIA.

Ovary 3—5 celled. Fruit fleshy. Leaves whorled. Stigma lobed.

### (Fadogia) 14 PACHYSTIGMA.

7. Ovary 2 celled. Drupe of 1—2 pyrenes. 12 PLECTRONIA.
- Ovary 3—6 celled. Drupe of 3—6 pyrenes.

### 13 VANGUERIA.

8. Shrubs or trees. Stem woody throughout. 9.  
Herbs or undershrubs or if shrubby then flowers small, axillary or dioecious. 10.



9. Corolla with contorted aestivation. Flowers 4 merous.

**15 PAVETTA.**

Corolla valvate.

**16 PSYCHOTRIA.**

10. Style arms 2, long, filiform, hairy. 11.

Style 1 with stigma 2 lobed, lobes obtuse, linear or spatulate  
or styles 2. Stigmas capitate. 12.

11. Flowers axillary, or, if not, then as usually dioecious.

**18 ANTHOSPERMUM.**

Flowers in terminal or terminal and lateral cymes or panicles.

Hermaphrodite.

**17 GALOPINA.**

12. Stipules not like leaves. Leaves opposite. 14.

Stipules similar to leaves. 13.

13. Corolla 5 parted. Fruit fleshy. **23 RUBIA.**

Corolla 4 parted. Fruit dry. **24 GALIUM.**

14. Ovary 3 celled. Style 3 cleft. Fruit separating into 3 nutlets.

**22 RICHARDSONIA.**

Ovary 2 celled. 15.

15. Strand plant. Leaves fleshy. Fruit indehiscent, corky.

**19 HYDROPHYLAX.**

Not strand plants. Leaves not fleshy. Fruit separating into  
mericarps. 16.

16. Fruit opening by a lid. Calyx with 2 teeth longer than others.

**21 MITRACARPUS.**

Fruit opening by one longitudinal slit. Calyx with 2—4 lobes,  
sometimes with intermediate accessory teeth.

**20 SPERMACOCE.**

17. Corolla valvate. Herbs or undershrubs. 18.

Corolla imbricate, usually contorted. Shrubs or trees. 19.

18. Calyx lobes unequal. Style arms papillose on both surfaces.

Flowers cymose. **3 PENTAS.**

Calyx lobes equal or nearly so. Style arms smooth on outer  
surface. Flowers in terminal or axillary panicles.

**2 OLDENLANDIA.**

19. Corolla imbricate, but not contorted. Flowers in dense globose  
heads. Ovary 2 celled. Style simple.

**1 CEPHALANTHUS.**

Corolla with contorted aestivation. 20.

20. Ovary 1 celled, but placentas projecting towards centre.

Flowers usually solitary. Style 1. Stigma 2 dentate.

**7 GARDENIA.**

Ovary completely 2—3 celled. 21.

21. Style more or less deeply cleft. Lobes erect or revolute.

**9 TRICALYSIA.**

Style entire or shortly lobed or toothed at apex. 22.

22. Inflorescences terminal or terminal and lateral. 23.

Inflorescences lateral. 25.

23. Style much projecting. Flowers white in cymose corymbs.

(Webera) 5 **TARENNA**.

Style not or slightly projecting beyond corolla tube. 24.

24. Corolla tube long, limb of 5 short lobes. Flowers red.

4 **BURCHELLIA**.

Corolla tube short (including *Mitriostigma*). 6 **RANDIA**.

25. Seed coat membranous or leathery. 6 **RANDIA**.

Seed coat fibrous. Flowers in corymbs. 8 **OXYANTHUS**.

1. **CEPHALANTHUS** L. "umFomfo."

*natalensis* Oliv. Uplands and Drakensberg.

2. **OLDENLANDIA** L. (Mostly in Grassveld.)

1. *amatymbica* Kuntze. In grassveld all over. Common.

2. *bojeri* Hiern. Near Inyezaan, Zululand.

3. *caffra* E. & Z. Coastbelt.

4. *cephalotes* Kuntze. Sandy places near Durban.

5. *chlorophylla* Kuntze. Near Durban.

6. *corymbosa* L. Zululand.

7. *decumbens* Hiern. Near Durban. "uMampeshana."

8. *heynii* R.Br. Inanda and Drakensberg.

9. *hirtula* Kuntze. Wet rocks, Inanda.

10. *macrophylla* DC. Near Durban.

11. *natalensis* Kuntze. Inanda.

12. *rupicola* Kuntze. Tagoma. Rocky places.

13. *tenella* Kuntze. Noodsberg.

14. *thymifolia* Kuntze. Blaaukrantz, 3-4,000 ft.

3. **PENTAS** Bth.

*wyliei* N.E.Br. Zululand, 2-3,000 ft.

4. **BURCHELLIA** R.Br. "Tobankone." "Qonga." "isiGolwana."  
"maFutumfuleni."

*capensis* R.Br. Coast and Midland bush. Common.

5. **TARENNA** Gaertn. (Webera Schreb.)

*pavettoides* (Bth. and Hk.) Coastbelt.

6. **RANDIA** L. (incl. *Mitriostigma* Hochst. and *Stylocoryne* Cav.)

1. *dumetorum* Lam. Coastbelt.

2. *rudis* E.M. Coast and Midlands. Thorn veld. "iNtsindi."

3. *parvifolia* Harv.

4. *cuspidata* (E.M.) (*Stylocoryne*). Coastbelt.

5. *axillaris* (Hochst) (*Mitriostigma*). Coastbelt.

6. *jasminodora* K. Krause. Zululand.

7. **GARDENIA** Ellis. "isiQatankobe." "isiQoba."

1. *globosa* Hochst. Coast and Midlands. "umSugusugu."  
"umSugusi." "inTungwane."

2. *neuberia* E. and Z. Coast and Midlands. "Tongoti."

3. *rothmannia* L.f. Midlands and Zululand. "Xelegengane."

4. *thunbergia* L.f. Coastbelt and Midlands. "umKangaza."

5. *cornuta* Hemsl. Zululand.

8. **OXYANTHUS** DC. "uPondolembalala." "Bovati" or "Bomvati."
1. *gerrardi* Sond. Inanda, Qudeni. Common.
  2. *latifolius* Sond. Umgeni. "Masapelemo."
  3. *natalensis* Sond. Coastbelt.
9. **TRICALYSIA** A. Rich. (*Kraussia* Harv.) "umSinjane" or "imPonyana."
1. *floribunda* (Harv.) Coastbelt. "inKweza."
  2. *lanceolata* (Sond.) Schum. Coast and Midlands. "umDhlesa." "isAnyana."
  3. *sonderiana* Hiern. Coastbelt. Common.
  4. *capensis* (Meisn.) Sim. Coast and Midlands.
10. **PENTANISIA** Harv. "iCitshumlilo." "iCimamlilo."
1. *variabilis* Harv. Common all over.  
*variabilis* var *glaucescens*. Common all over.  
*variabilis* var *latifolia*. Common all over.
  2. *longisepala* Krause.
11. **ALBERTA** E.M. "iTshola benyoni." "umKumane." "Gibampondo."  
*magna* E.M. Midlands. Not common.
12. **PLECTRONIA** L. "umVutwamini." "inQwelambilu."
1. *chamaedendrum* O. Kuntze. Biggarsberg.
  2. *ciliata* D. Dieter. Coast to Drakensberg.
  3. *locuples* K. Schum. Coastbelt bush.
  4. *pauciflora* Klotzsch. Midlands.
  5. *spinosa* Klotzsch. Coast and Midlands. Bush and thorn veld. Common.
  6. *ventosa* L. Coast and Midlands. Thorn veld and bush.
  7. *gueinzii* (Sond.) Coast and Midlands. Climber. "umNyisi."
  8. *obovata* (Kl.) Coastbelt. Common. "Xulalembile" or "umBonemfane."
  9. *mundii* Sim. Midlands. "Sandulane."
13. **VANGUERIA** Juss. "umViyo." "iDulumuthwa."
1. *infausta* Burch. Coast and Midlands. Common.
  2. *lasiantha* Sond. Coast and Midlands. Common.
  3. *latifolia* Sond. Coastbelt. Common. "uTluna yomntwana."
  4. *macrocalyx* Sond. Krantzkloof.
  5. *pygmaea* Schltr. Lidgetton.
  6. *venosa* Sond. (*edulis* Vahl.) Coastbelt.
14. **PACHYSTIGMA** Hochst. (*Fadogia* Schweinfurth.)  
*humilis* (Wood & Evans). Van Reenen.
15. **PAVETTA** L. "umKedeza."
1. *assimilis* Sond. Drakensberg.
  2. *caffra* L.f. Coastbelt and Midlands.

3. *cooperi* Harv. & Sond. Midlands.
4. *disarticulata* Galpin. Zululand.
5. *edentula* Sond. Qudeni.
6. *gerrardii* Harv. Tugela Valley.
7. *lanceolata* Eck Coast and Midlands. Common. "Sam-pasu."
8. *natalensis* Sond. Coast and Midlands. Common.
9. *obovata* E.M. Coast to Midlands. Common.
16. **PSYCHOTRIA** L. "iBiqongo." "iZeLe."
  1. *capensis* Natke. Coastbelt and Midlands. Dense shade bearer.
  2. *bachmannii* Krause. Ellesmere. 2,000 ft.
17. **GALOPINA** Thb. (Herbs.)
  1. *circaeoides* Thb. Drakensberg.
  2. *oxyspermum* Steud. Near Durban.
18. **ANTHOSPERMUM** L. (Herbs.)
  1. *calycophyllum* Sond. Zululand.
  2. *hispidulum* E.M. Izingolweni.
  3. *humile* N.E.Br. Ulundi, 6-7,000 ft.
  4. *lanceolatum* Thb. Common all over.
  5. *pumilum* Sond. Mooi River.
  6. *rigidum* E. & Z. Van Reenen.
  7. *rubricaulis* K. Schum. Zululand. 'Nkandhla.
19. **HYDROPHYLAX** L. (Herbaceous.)
  1. *carnosa* Sond. Common. Strand plant. Seashore.
20. **SPERMACOCE** L. (Herb.)
  1. *natalensis* Hochst. Weed. Common all over.
21. **MITRACARPUS** Zuccarini.
  1. *dregeanus* E.M. Coastbelt.
22. **RICHARDSONIA** Kunth.
  1. *pilosa* H. B. & K. Common weed.
23. **RUBIA** L. "imPindiza." "inTambiso."
  1. *cordifolia* L. Common. Coast and Midlands. Climbing.
  2. *petiolaris* DC. Greytown.
24. **GALIUM** Tourn.
  1. *aparine* L. Common ruderal.
  2. *garipense* Sond. Mooi River.
  3. *horridum* Thb.
  4. *rotundifolium* L.
    1. *rotundifolium* var *hirsutum* Sond. Olivier's Hoek.
  5. *subvillosum* Sond. Weenen County and Drakensberg.
  6. *wittebergense* Sond var *glabrum* Phillips. Van Reenen.

### FAMILY 143—VALERIANACEAE.

Herbs or undershrubs. Leaves opposite or all radical exstipulate. Inflorescence cymose. Calyx not distinctly developed at



time of flowering. Petals 5 united below. Stamens 1—3, epipetalous. Ovary inferior, 3 celled (2 empty or rudimentary). Ovule 1, pendulous, inverted. Style simple. Seeds exendospermic. 1 genus, 1 species.

**VALERIANA L.**

**capensis** Thb. Common in vleis all over Natal.

**FAMILY 144—DIPSACEAE.**

Herbs or undershrubs. Leaves opposite, exstipulate. Flowers in heads surrounded by general involucre, and each flower with a separate involucel or epicalyx. Petals united below. Stamens 2—4 in the tube exserted, separate. Ovary inferior, 1 celled. Ovule 1 pendulous, inverted. Style simple. Seed endospermic. 2 genera 6 species

Involucre bracts in several rows. Involucel 4 angled, 8 furrowed with 4—8 toothed crown.

**CEPHALARIA.**

Involucre bracts in 2 rows. Calyx crowned with 5 bristles.

**SCABIOSA.**

**1. CEPHALARIA** Schrad.

1. **attenuata** R. & S. Common all over.

2. **rigida** R. & S.

3. **ustulata** R. & S. Byrnetown.

**ustulata** var **pilosa**. Drakensberg.

4. **bachmannii** Engl. Alexandra County.

**2. SCABIOSA L.**

1. **columbaria** L. Common.

**columbaria** L. var **dissecta** Sond. Common all over.

2. **africana** L. Van Reenen.

**FAMILY 145—CUCURBITACEAE.**

Herbs with prostrate or climbing very long stems and simple or branched tendrils. Leaves broad. Flowers unisexual or polygamous, regular or nearly so. Calyx of 5 united sepals. Petals 5, usually united, continuous with top of calyx tube. Stamens 4—5, 4 of them united in pairs rarely all free or united. Ovary inferior, ovules inverted. Fruit a berry or gourd, sometimes dehiscent, more rarely dry and indehiscent. Seeds exendospermic. 12 genera 31 species.

1. Stamens 5. One of them sterile. Filaments free. Anthers more or less cohering. Seeds winged. **11 GERRARDANTHUS.**

Stamens united in pairs or all united in a column, hence apparently 1, 2 or 3. Rarely all free, but then all fertile, though sometimes one or more celled. 2.

2. Anther cells straight or slightly flexuous, rarely shortly inflexed at the base or apex. 3.

Anther cells much curved or twisted U or S-shaped. 7.

3. Disc at base of style distinctly developed. **9 MELOTHRIA.**

Disc at base of style indistinct or wanting.

4. Stamens inserted at the throat of the calyx.

**4 MOMORDICA.**

Stamens inserted in the calyx tube.

5. Male flowers solitary or in fascicles or heads. Stamens with a lengthened apical connective.

**5 CUCUMIS.**

Male flowers in racemes.

6. Staminodes in female flowers thread-like, curved. Connective not prolonged at apex. Fruit bottle-shaped.

**10 TOXANTHERA.**

Staminodes in female flowers small or wanting. Connective prolonged, or, if not, fruit oblong without a beak.

**8 KEDROSTIS.**

7. Corolla campanulate. Anthers cohering. Filaments sometimes all united in a column.

**7 COCCINIA.**

Corolla more or less rotate.

8. Calyx tube of male flowers long, cylindrical, funnel-shaped.  
Calyx tube of male flowers short, top or bell-shaped.

9. Anthers connate. Female flowers without staminodes.

**2 PEPONIUM.**

Anthers free or loosely cohering. Female flowers with staminodes.

10. Flowers small, yellow or red. Anthers cohering.

**1 TROCHOMERIA.**

Flowers large, white. Climbing herb.

**12 LAGENARIA.**

11. Stamens inserted at the throat of the calyx.

**4 MOMORDICA.**

Stamens inserted in the tube of the calyx.

12. Flowers dioecious. Stigma 1, 3 lobed. Leaf stalk with 2 glands at the apex.

**3 SPHAEROSICYOS.**

Flowers monoecious. Stigmas 3, two lobed. Leaf stalk glandless.

13. Stamens with a lengthened 2 cleft apex. Tendrils simple or wanting.

**5 CUCUMIS.**

Connective of stamens not prolonged at apex. Tendrils branched.

**6 CITRULLUS.**

**1. TROCHOMERIA Hook.**

1. *hookeri* Harv. Coast and Midlands.

2. *sagittata* Bth. & Hk.f. Coast and Midlands. Grassveld. Common.

3. *pectinata* Bth. & Hk.f. Zululand.

**2. PEPONIUM Naud. (Peponia Naud.)**

*mackenii* Naud. In bush, near Durban. Rare.

**3. SPHAEROSICYOS Hk.f.**

*sphaericus* Hk.f. Coastbelt. Common. "uSelwa."

**4. MOMORDICA L.**

1. *charantia* L. Near Durban.
2. *balsaminea* L.
3. *foetida* Schum. Inanda. "inTshunga."
4. *involucrata* E.M. Coastbelt. Common. "inTshungwana."

**5. CUCUMIS L.**

1. *africanus* L.f. Charlestown. "Sendelenja."
2. *dissectifolius* Naud. Mooi River.
3. *figarei* Del. Inanda.  
*figarei* var *echinosporus* Naud.
4. *hirsutus* Sond. Coast and Midlands. "umTangasana."
5. *metuliferus* E. & Z. Umzimvubo.

**6. CITRULLUS Neck.**

- vulgaris* Schrad. Umlaas Valley.

**7. COCCINIA Wight & Arn.**

1. *hirtella* Cogn. Midlands and Drakensberg.
2. *mackenii* Cogn.
3. *palmata* Cogn. Coast and Midlands.
4. *sp. nov.* Near Mooi River.

**8. KEDROSTIS Medic.**

1. *foetidissima* Cogn. Coast and Midlands.
2. *glauca* Cogn. Near Estcourt, 3-4,000 ft.
3. *longipedunculata* Cogn. Inanda.

**9. MELOTHRIA L.**

1. *membranifolia* Cogn. Inanda.
2. *parvifolia* Cogn. Near Durban.
3. *maderaspatana* Cogn. Tugela Valley.
4. *obtusiloba* Cogn.
5. *punctata* Cogn. Common in light bush all over.

**10. TOXANTHERA Hk.f.**

- natalensis* Hk.f. Inanda.

**11. GERRARDANTHUS Harv.**

1. *macrorrhiza* Harv. Nonoti. Umzinyati.
2. *tomentosa* Hk.f. Inanda.

**12. LAGENARIA Seringe.**

- vulgaris* Ser.

**FAMILY 146—CAMPANULACEAE.**

Herbs or rarely shrubs. Leaves alternate, rarely opposite, entire toothed or lobed exstipulate. Petals united below. Stamens as many as petals. Ovary inferior or half inferior, rarely (**Light-footia**) superior, 2—10 celled. Ovules many, rarely few, apical or basal. Style simple. Fruit a capsule, rarely a berry, nut or drupe. Endosperm fleshy. 5 genera 62 species.

1. Anthers connate. Flowers irregular.

**1 LOBELIA.**

- Anthers free. Flowers regular or irregular.

2.

2. Flowers irregular. Ovary 2 celled. **2 CYPHIA.**  
 Flowers regular or nearly so.
3. Capsule opening by an apical lid or pores. **5 ROELLA**  
 Capsule opening by apical loculicidal valves. 4.
4. Petals free or nearly so. Narrow. **3 LIGHTFOOTIA.**  
 Petals united below in a tube. **4 WAHLENBERGIA.**
- 1. LOBELIA L.**
1. *anceps* L.f. Common on coastbelt.
  2. *bergiana* Cham.
  3. *cochlearifolia* Diels. n'Kandhla.
  4. *coronopifolia* L. Coastbelt. Common.
  5. *decipiens* Sond. Common in wet places all over.
  6. *erinus* L. Groenberg, 2,000 ft.
  7. *laxa* MacOwan. Weenen, 4-5,000 ft.
  8. *leptocarpa* Gressel.
  9. *dregeana* A.DC. Common in upper districts.
  10. *natalensis* A.DC. n'Kandhla, Zululand. Upper Tugela.
  11. *ottoniana* A.DC. Jolivet, 3,000 ft.
  12. *patula* L. var *pteropoda*. Inanda and Zululand.
  13. *preslii* A.DC. Mawakqa Mt. 6-7,000 ft., and Drakensberg.
  14. *radicans* Thb. Near Durban.
  15. *scabra* Thb. Murchison Flats.
  16. *stellaroides* Bth. & Hk. Ngoya, Zululand. Sydenham.
  17. *tomentosa* L. Ingwavuma, Zululand. Open sandy country.
  18. *van-reenensis* K. Schum.
  19. *sp.* n'Kandhla, 4-5,000 ft. (Wood 8863.)
- 2. CYPHIA Bergius.**
1. *elata* Harv. Common all over.
  2. *longifolia* N.E.Br. Midlands.
  3. *corylifolia* Harv. Midlands and Drakensberg.
  4. *natalensis* Phillips. Midlands.
  5. *tysonii* Phillips. Kokstad.
  6. *sylvatica* Eckl. Midlands. A twiner.
  7. *assimilis* Sond. Uncertain.
  8. *linarioides* E. & Z. Alexandra County.
- 3. LIGHTFOOTIA L'Herit.**
1. *capensis* Buck. Camperdown.
  2. *corymbosa* O. Ktze. Krantzklouf.
  3. *fasciculata* Spreng.
  4. *glomerata* Engl. Zululand.
  5. *huttoni* Sond. Midlands and Drakensberg.
- 4. WAHLENBERGIA Schrad.**
1. *capillata* v. Brehmer. Polela, 4-5,00—6,000 ft.
  2. *pinifolia* N.E.Br. On damp rocks. Weenen County, 5-6,000 ft.
  3. *acicularis* v. Brehmer. Van Reenen.



4. **polytrichifolia** Schltr. Kokstad.
  5. **depressa** Wood & Evans. Drakensberg, 4—6,000 ft.
  6. **fasciculata** v. Brehmer var **pilosa**. Drakensberg.
  7. **capillacea** A.DC. Coast and Midlands.
  8. **squamifolia** v. Brehmer. Midlands and Drakensberg.
  9. **epacridea** Sond. Midlands and Zululand.
  10. **capensis** (L.) A.DC. Midlands.
  11. **zeyheri** Buck. Midlands.  
    **zeyheri** var **natalensis** Sond. Midlands.
  12. **cernua** A.DC. Doubtful.
  13. **caledonica** Sond. Midlands.
  14. **dinteri** v. Brehmer. Midlands.  
    **dinteri** var **rotundicapsula** v. B. Newcastle.  
    **dinteri** var **paucilaciniata** v. B. Midlands.  
    **dinteri** var **virgulta** v. B. Umgeni.
  15. **scoparia** v. Brehmer. Wessel's Nek.
  16. **obovata** v. Brehmer.
  17. **grandiflora** v. Brehmer. Coast and Midlands. Common.  
    (**undulata** Sond.) ("Shwaqa.")  
    **grandiflora** var **fissa** v. B.  
    **grandiflora** var **lata** v. B. Van Reenen.
  18. **dentifera** v. Brehmer. Drakensberg.
  19. **fistulosa** v. Brehmer. Coastbelt.
  20. **rivularis** Diels. Kokstad.
  21. **paucidentata** Schinz. Midlands.  
    **paucidentata** var **tysoni** Schinz. Drakensberg.
  22. **undulata** A.DC. Doubtful.
  23. **furcata** v. Brehmer. Polela.
  24. **denudata** A.DC. Kokstad.
  25. **congestifolia** v. Brehmer.  
    **congestifolia** var **glabra** v. B. Alexandra County.
  26. **ovalis** v. Brehmer. Midlands.
  27. **montana** A.DC. Midlands and Drakensberg.  
    **montana** var **angustisepala** v. Brehmer. Van Reenen.
  28. **oppositifolia** A.DC. Common all over.  
    **oppositifolia** var **crispa** v. Brehmer. Midlands.
  29. **arenaria** A.DC.
5. **ROELLA** L.  
    **glomerata** A.DC. Near Durban.

### FAMILY 147—GOODENIACEAE.

Shrubs or trees. Leaves alternate, undivided, exstipulate. Flowers irregular, hermaphrodite. Calyx truncate, or 5 toothed. Corolla 5 lobed, slit open behind. Stamens 5, free from corolla. Anthers free. Ovary inferior, 2 celled. Ovules solitary in each cell, erect. Style simple. Stigma capitate, surrounded by a fringed

cup. Fruit a drupe. Endosperm fleshy. 1 genus 1 species.

**SCAEVOLA L.**

**thunbergii** E. & Z. (**lobelia** Murr). A common fleshy-leaved strand plant growing in the sand, often within reach of the sea.

**FAMILY 148—COMPOSITAE.**

Mostly herbs and shrubs, but including every variety of growth form. Leaves usually simple, exstipulate. Flowers arranged in heads, surrounded by an involucre of bracts (rarely spikelike or one flowered). Heads containing all hermaphrodite flowers or several sterile (male) or consisting of central (disc) hermaphrodite or male flowers and marginal (ray) female or neuter flowers. Rarely heads unisexual. Calyx limb (pappus) of scales or hairs. Corolla of united petals 3—5 lobed or strap-shaped (ligulate) or wanting. Stamens usually 5 inserted on corolla tube. Anthers connate, opening inwards. Ovary 1 celled, inferior. Ovule 1 erect inverted. Style 2 cleft. Seed exendospermic. 95 genera 479 species.

1. Flowers all ligulate (strap-shaped) (**Cichorieae**). 2.
- Disc flowers tubular, with or without ray flowers. 8.
2. Pappus plumose (bristles conspicuously feathery).

**90 HYPOCHAERIS.**

- Pappus of bristles smooth, rough, or shortly ciliate. 3.
3. Fruit ending in a beak. 4.
- Fruit not beaked, but sometimes narrowed at apex. 5.

4. Fruit compressed. **91 LACTUCA.**

- Fruit terete or angular, many ribbed. **89 CREPIS.**

5. Fruit much narrowed at top. **89 CREPIS.**

- Fruit not much narrowed at top. 6.

6. Outer fruits transversely wrinkled or hairy. Inner fruits smooth and glabrous. Stem trailing. **92 LAUNAEA.**

- Fruits all alike. Erect plants. 7.

7. Fruits compressed. Branching herbs. **93 SONCHUS.**

- Fruits terete or angular. Leaves usually all radical

**88 HIERACIUM.**

8. Styles of hermaphrodite flowers at or below point of division thickened or provided with a ring of long hairs. Involucre bracts in several rows. 9.

- Styles not thickened nor provided with long hairs at or below the point of division. 17.

9. Outer flowers not strap-shaped. Anthers usually tailed. 10.

- Outer flowers strap-shaped. Anthers not tailed. 13.

10. Receptacle with scales between the flowers. Flowers in clusters.

**82 PLATYCARPHA.**

- Receptacle without scales, or if scales present, then flowers not in clusters. 11.

11. Fruits with a basal point of attachment. **81 BERKHEYA.**  
Fruits with a lateral or oblique point of attachment. 12.
12. Leaves prickly. **84 CNICUS.**  
Leaves unarmed. **83 CENTAUREA.**
13. Involucral bracts free, the inner scarious at apex. 14.  
Involucral bracts united at least at base. 16.
14. Ray flowers neuter, without achenes or pappus. **78 CRYPTOSTEMMA.**  
Ray flowers female, producing achenes. 15.
15. Pappus of several narrow diaphanous scales. **77 HAPLOCARPHA.**  
Pappus 0, or of 4—5 minute squamules. **79 VENIDIUM.**
16. Involucral bracts united at base only. Receptacle with deep pits. **81 BERKHEYA.**  
Involucral bracts united to the middle or beyond. **80 GAZANIA.**
17. (8) Anthers tailed. 18.  
Anthers entire, auricled or sagittate, rarely shortly mucronate at the base, but not tailed. 53.
18. Corolla of hermaphrodite flowers irregular, 2 lipped or deeply divided. 19.  
Corolla of hermaphrodite flowers toothed or cleft or flowers unisexual. 20.
19. Corolla 2 lipped. Achenes beaked. Stemless herbs. **87 GERBERA.**  
Corolla deeply cleft. Achenes villous. Shrublets. **85 DICOMA.**
20. Receptacle with scales between flowers at least towards margins. 21.  
Receptacle glabrous or hairy without scales. 28.
21. All the flowers hermaphrodite. **24 HELICHRYSUM.**  
Not all the flowers hermaphrodite. 22
22. Corolla of marginal flowers, strap-shaped. 23.  
Corolla of marginal flowers, thread-shaped. 25.
23. Style branches truncate. Marginal rows of stigmatic papillae not confluent at tip. **29 RELHANIA.**  
Style branches rounded or blunt. Marginal rows of stigmatic papillae confluent at tip. 24.
24. Pappus of 2—3 keeled scales. **38 CALLILEPIS.**  
Pappus of 10—16 scales, all or half of them awned. **37 GEIGERIA.**
25. Female flowers 3—6, hermaphrodite 1—2. **22 ACHYROCLINE.**  
Female flowers fewer than the hermaphrodite. 26.
26. Hermaphrodite flowers sterile. Female flowers hidden in axils of outermost involucral scales. Shrubs. **31 PETALACTELLA.**

- Hermaphrodite flowers fertile. 27.
27. Scales between flowers long, deciduous. 26 **CASSINIA**.  
Scales between flowers, short, persistent.
- 24 **HELICHRYSUM**.
28. Flowers dioecious. Trees and shrubs. 29.  
Flowers not dioecious. 30.
29. Involucral bracts of male heads in 1 row, of female in 2 rows.  
Pappus none. 16 **TARCHONANTHUS**.  
Involucral bracts in several rows. Pappus of bristles.
- 15 **BRACHYLAENA**.
30. Inner flowers hermaphrodite but sterile (male). 31.  
Inner flowers hermaphrodite and fertile. 39.
31. Corolla of outer flowers strap-shaped. 32.  
Corolla of outer flowers thread-shaped. 36.
32. Pappus of bristles. Shrubs. 30 **MACOWANIA**.  
Pappus absent. 33.
33. Marginal fruits of several kinds. (If curved then **Calendula** L.  
marigold). Fruits straight. Heads small.
- 73 **OLIGOCARPUS**.  
Marginal fruits all alike. 34.
34. Fruits with 3 wings and a cupular appendage.
- 72 **TRIPTERIS**.
- Fruits without wings or appendages. 35.
35. Involucral bracts in 1 row or nearly so. Fruits 3 angled, usually  
tubercled. 71 **DIMORPHOTHECA**.  
Involucral bracts in 2 or more rows. Fruits smooth.
- 75 **OSTEOSPERMUM**.
36. Pappus of bristles. 17 **BLUMEA**.  
Pappus wanting, at least in marginal fruits. 37.
37. All fruits without a pappus. 20 **SPHAERANTHUS**.  
Outer fruits without, inner with a pappus. 38.
38. Heads in glomerules. Female corolla shortly toothed.
- 21 **AMPHIDOKA**.  
Heads in corymbs. Female corolla 2 cleft. Bristles 1—2.
- 19 **DENEKIA**.
39. Style branches of hermaphrodite flowers hairy outside from  
tip to below point of division. See 36, 37, 38.  
Style branches hairy only in their upper part. 40.
40. Style branches blunt or rounded. Marginal rows of stigmatic  
papillae confluent at apex. 41.  
Style branches usually truncate. Marginal rows of stigmatic  
papillae not confluent at apex. 44.
41. Pappus of 3—5 scales. 86 **ANISOCHAETA**.  
Pappus of bristles, or of scales and bristles. 42.
42. Pappus of scales united below and 7 or more bristles.
- 36 **PULICARIA**.



- Pappus of bristles. 43.
43. Ray flowers white, blue or red. Shrubs. **35 PRINTZIA.**  
Ray flowers yellow or wanting (*Bojeria*). **34 INULA.**
44. Corolla of marginal flowers strap-shaped. 45.  
Corolla of marginal flowers thread-shaped, or marginal  
flowers 0. 47.
45. Pappus of scales united below. Heathlike plants. **28 NESTLERA.**  
Pappus 0 or of bristles. Not heath-like plants. 46.
46. Pappus wanting. **71 DIMORPHOTHECA.**  
Pappus of bristles. **33 ATHRIXIA.**
47. Hermaphrodite flowers fewer than the female. 48.  
Hermaphrodite flowers as many as or more than female, or  
latter 0. 50.
48. Outer flowers without, inner with plumose pappus. **21 AMPHIDOXIA.**  
Inner and outer flowers with pappus. 49.
49. Heads 4—8, flowered, cylindrical. **22 ACHYROCLINE.**  
Heads many flowered. **23 GNAPHALIUM.**
50. Heads 1 flowered. Pappus plumose. Heathlike shrubs. **32 STOEBE.**  
Heads more than 1 flowered. 51.
51. Pappus bristles in 3 or more rows. **25 LEONTONYX.**  
Pappus bristles in 1 row. 52.
52. Habit heath-like. Leaves rolled in on upper face. **27 METALASIA.**  
Habit not heath like. **24 HELICHRYSUM.**
53. (17) Hermaphrodite disc flowers sterile, their style without a  
stigma, usually entire or short toothed. 54.  
Hermaphrodite flowers, at least some of them, fertile. 74.
54. Anthers sagittate, with acuminate halves. Pappus wanting,  
rarely cup-shaped. Receptacle glabrous, rarely bristly. 55.  
Anthers entire or shortly auricled at the base. 59.
55. Outer fruits of several kinds (see 33.) **73 OLIGOCARPUS.**  
Outer fruits all alike. 56.
56. Fruit with 3 wings, and an apical appendage. **72 TRIPTERIS.**  
Fruit without distinct wings or appendages. 57.
57. Fruits smooth or indistinctly ribbed. Rayflowers yellow. In-  
volucre of 2 or more rows. **75 OSTEOSPERMUM.**  
Fruits 3 angled, usually tubercled. 58.
58. Involucral bracts in 1 row or 2 indistinct rows. **71 DIMORPHOTHECA.**  
Involucral bracts in several rows. Rays blue or white. **74 GARULEUM.**
59. Receptacle with chaffy scales. 60.  
Receptacle glabrous, or hairy without scales. 62.

60. Heads with female and male (apparently hermaphrodite) flowers. Female corollas strap-shaped or thread-shaped.  
**39 PARTHENIUM.** 61.  
Heads unisexual.
61. Female heads 2 flowered. **40 XANTHIUM.**  
Female heads 1 flowered. **52 AMBROSIA.**
62. Pappus of outer fruits 0, or if present, not of bristles. 63.  
Pappus of outer fruits consisting of bristles. 67.
63. Outer flowers with a strap-shaped corolla. 64.  
Corolla of outer flowers tubular or wanting. 66.
64. Corolla of outer flowers very shortly strap-shaped, of inner 4-toothed. Involucre in 2 rows. (*Cenia*.) **58 COTULA.**  
Corolla of outer flowers distinctly strap-shaped. Involucre rarely in 2 rows and then corolla of inner flowers 5-toothed. 65.
65. Style branches pointed or style undivided. Flowers blue, rarely white. **74 GARULEUM.**  
Style branches truncate. Fruits 5—10 ribbed.  
**55 CHRYSANTHEMUM.**
66. Corolla of inner flowers 2-4-toothed. **58 COTULA.**  
Corolla of inner flowers 5-toothed. **62 ARTEMESIA.**
67. Pappus of 1 or 2 rows of bristles. 68.  
Pappus (at least of outer fruits) of 3 or more rows of bristles. 72.
68. Involucre bracts free in 1 row. **65 CINERARIA.**  
Involucre bracts in 2 or more rows. 69.
69. Outer corollas thread-shaped (see 64 and 66). **58 COTULA.**  
Outer corollas strap-shaped. 70.
70. Stem woody at the base. **8 FELICIA.**  
Stem herbaceous. 71.
71. Involucral bracts in 2 rows. **9 ERIGERON.**  
Involucral bracts in 3 or more rows. **7 ASTER.**
72. Involucral bracts in several rows. **7 ASTER.**  
Involucral bracts in 1 row, sometimes surrounded by smaller ones. 73.
73. Style of central flowers 2 cleft (*Othonnopsis*). **67 HERTIA.**  
Style of central flowers undivided. **70 OTHONNA.**
74. (53) Style branches of hermaphrodite flowers with hairs on the outer surface and below point of division. Stigmatic papillae on inner surface. 75.  
Style branches hairy chiefly in upper part, not below point of division. Stigmatic papillae marginal. 78.
75. Pappus wanting. **1 ETHULIA.**  
Pappus of scales or bristles. 76.
76. Pappus of scales. **81 BERKHEYA.**  
Pappus of bristles. 77.

77. Marginal flowers female, with thread-shaped corollas. **18 LAGGERA.**  
 All flowers alike with corollas 5 cleft. **2 VERNONIA.**
78. Style branches long, blunt semicylindrical, hairy in upper part on both sides. Flowers all hermaphrodite, red, blue, or white. Leaves opposite. 79.  
 Style branches rather flat, scantily hairy on inner surface or flowers yellow, or partly female, or leaves alternate. 81.
79. Anthers without an apical appendage. Pappus of 3—5 bristles. **3 ADENOSTEMMA.**  
 Anthers with an apical appendage. Pappus of numerous bristles or of scales. 80.
80. Pappus of 5—10 scales. Herb. **4 AGERATUM.**  
 Pappus of numerous bristles. Climber. **5 MIKANIA.**
81. Style branches with short subequal hairs on upper part, on outer, rarely inner surface. 82.  
 Style branches bearing a crown of long hairs, with or without shorter ones above or below, or above and below. 92.
82. Corolla of marginal flowers present, but very short, not overtopping involucre. 83.  
 Corolla of marginal flowers overtopping involucre or wanting. 87.
83. Pappus wanting, rarely a few minute bristles on central fruits. **6 DICROCEPHALA.**  
 Pappus present consisting of long bristles. 84.
84. Female flowers in 1 row. Pappus deciduous. Shrubby plants. **12 NOLLETIA.**  
 Female flowers in 2 or more rows. 85.
85. Corolla of marginal flowers strap-shaped, but shorter than style, or thread-shaped. **11 CONYZA.**  
 Corolla of marginal flowers strap-shaped, but longer than style. 86.
86. Ray flowers yellow. **10 NIDORELLA.**  
 Ray flowers red or white (see 71). **9 ERIGERON.**
87. Involucral bracts in 1 row or 2 very unequal rows. **64 GYNURA.**  
 Involucral bracts in 2 subequal or 3 or more rows. 88.
88. Ray flowers yellow or wanting. 89.  
 Ray flowers red, blue or white. 90.
89. (a) Pappus bristles in 1 row. Fruits compressed. **13 CHRYSOCOMA.**  
 (b) Pappus bristles in 1 row. Fruits turgid. **13a PENTHERIELLA.**  
 (c) Pappus bristles in 2 or 3 rows. **14 HETEROMMA.**

90. Stem woody, at least at base, or, if herbaceous, much branched from base. Pappus in 1 row, rarely in 2. Marginal flowers in 1—2 rows. **8 FELICIA.**

Stem herbaceous, not much branched from base. 91.

91. Involucral bracts in 2 rows. Marginal flowers usually in several rows. (Weeds.) **9 ERIGERON.**

Involucral bracts in 3 or more rows. Marginal flowers in 1—2 rows. **7 ASTER.**

92. Pappus of thin, hairlike, simple or toothed, but not feathery bristles, rarely outer fruits without a pappus. Receptacle without scales between the flowers. 93.

Pappus of strong, awnlike or feathery bristles or of scales sometimes united, or wanting. 97.

93. Involucral bracts in 1 row, united below. **68 EURYOPS.**

Involucral bracts free, nearly or quite to the base. 94.

94. Involucral bracts with a leaf-like crest along the middle nerve. **63 LOPHOLAENA.**

Involucral bracts not crested and winged. 95.

95. Style branches with an awl-shaped hairy appendage without a distinct crown of longer hairs. **64 GYNURA.**

Style branches truncate with a terminal tuft of hairs, or with a hairy appendage overtopping a crown of longer hairs. 96.

96. Fruits, at least the outer, compressed dorsally. **65 CINERARIA.**

Fruits not compressed, 5—10 ribbed. **66 SENECIO.**

97. Involucral bracts (at least the inner ones) scarious at tips and edges. Pappus of minute scales or wanting. Style branches truncate with a terminal crown of hairs. 98.

Involucral bracts rarely scarious at the edges, and if so, then pappus of bristles or style branches ending in a hairy appendage. 110.

98. Anthers arrow-shaped. Halves pointed at base. **71 DIMORPHOTHECA.**

Anthers not arrow-shaped. Halves blunted or rounded at base. 99.

99. Receptacle with scales between the flowers. 100.

Receptacle glabrous or hairy without scales. 101.

100. Leaves opposite or whorled. Heads solitary at ends of branches. **55 EUMORPHIA.**

Leaves alternate. Heads usually in corymbs without ray flowers. **54 ATHANASIA.**

101. Marginal flowers with a strap-shaped corolla 102.

Marginal flowers not with a strap-shaped corolla. 104.

102. Involucral bracts in many rows imbricate, the outer much shorter. **56 CHRYSANTHEMUM.**

Involucral bracts in few rows, about equal. 103.



103. Ray flowers yellow, shortly strap-shaped. **58 COTULA.**  
 Ray flowers white, long strap-shaped. **57 MATRICARIA.**
104. Flowers 4 merous. 105.  
 Flowers 5 merous. 107.
105. Involucre bracts in several rows, the outer shorter. Inner  
 fruits 4 angled. Heads small.  
**59 SCHISTOSTEPHIUM.**  
 Involucre in 1—3 rows, nearly equal. 106.
106. Pappus ring or crown-shaped. **57 MATRICARIA.**  
 Pappus wanting. **58 COTULA.**
107. Heads in leafy racemes, spikes or elongated panicles.  
**62 ARTEMESIA.**  
 Heads solitary or in corymbs. 108.
108. Involucre in 1—3 rows. Bracts nearly equal. Herbs.  
**57 MATRICARIA.**  
 Involucre in several rows, outer bracts shorter. Stem woody.  
 109.
109. Leaves opposite. Fruits with 10—15 ribs.  
**60 GYMNOPTERIS.**  
 Leaves alternate. Fruits with 5 ribs. **61 PTERIS.**
110. Receptacle with scales between the flowers. 111.  
 Receptacle glabrous, rarely hairy, without scales. 122.
111. Pappus of 5—6 large, usually spirally rolled scales, and often  
 5—6 bristles inside. **76 URSINIA.**  
 Pappus wanting or crown-shaped or of small scales, or if of  
 large scales, then numbers either 1—2 or 8—16. 112.
112. Pappus of feathery bristles. **51 TRIDAX.**  
 Pappus of simple bristles or scales or wanting. 113.
113. Pappus at least on inner fruits of 8—16 large scales.  
**53 GALINSOGA.**  
 Pappus of 1—2 large scales, or of small scales or bristles, or  
 wanting. 114.
114. Marginal flowers persistent in fruit. **41 ZINNIA.**  
 Marginal flowers not persistent. 115.
115. Inner fruits compressed from front to back. 116.  
 Inner fruits not or laterally compressed. 117.
116. Ray flowers large white or red. Fruits beaked. **49 COSMOS.**  
 Ray flowers if present small. Fruit with prongs.  
**48 BIDENS.**
117. Inner fruits much compressed laterally.  
**47 SPILANTHES.**  
 Inner fruits slightly or not compressed. 118.
118. Inner involucre bracts embracing outer fruits.  
**42 SIEGESBECKIA.**  
 Inner involucre bracts not embracing outer fruits. 119.

119. Receptacle scales very narrow almost bristle like.

**43 ECLIPTA.**

Receptacle scales broad or rather broad, convex or keeled. 120.

120. Pappus cup-shaped with or without free bristles, or wanting.

**44 WEDELIA.**

Pappus of free caducous bristles or scales. 121.

121. Pappus bristles 1—4, broadened below. **46 HELIANTHUS.**

Pappus bristles thin, usually numerous. Leaves opposite.

**45 MELANTHERA.**

122. Involucral bracts free in 1—2 rows. **71 DIMORPHOTHECA.**

Involucral bracts united below. 123.

123. Pappus wanting. **69 GAMOLEPIS.**

Pappus of 3—6 scales. **50 TAGETES.**

**1. ETHULIA L.** "umSokosoko."

*conyzoides* L. Common weed. Coast and Midlands.

**2. VERNONIA Schreb.**

1. *angulifolia* DC. Common. Coast and Midlands.

2. *anisochaetoides* Sond. Coastbelt.

3. *collina* Schltr. Noodsberg.

4. *corymbosa* Less. Common. Coast and Midlands.

"uHlungahlunga."

5. *dregeana* Sch. Bip. In moist places. Coast and Midlands.

6. *gerrardi* Harv. Common in Midlands.

7. *hirsuta* Sch. Bip. Common. Coast to Drakensberg.

*hirsuta* var *flanagani* Phillips. Drakensberg.

8. *kraussii* Sch. Bip. Common in grassveld all over.

9. *mespilifolia* Less. Coast and Midlands. "Nyathelo."

10. *monocephala* Harv. Upper districts.

11. *natalensis* Sch. Bip. Common. Coast to top of Drakensberg.

12. *oligocephala* Klatt. Inanda.

13. *pinifolia* Less. Coast to Drakensberg.

14. *podocoma* Sch. Bip.

15. *senegalensis* Less. Zululand.

16. *stipulacea* Klatt. Drakensberg.

17. *sutherlandi* Harv. Klip River.

18. *vernonella* Harv. Near Verulam.

19. *woodii* O. Hoffm. Inanda and Coastbelt. Cultivated by natives. "iNyathelo."

**3. ADENOSTEMMA Forst.**

1. *viscosum* Forst. Moist places. Midlands.

2. *caffrum* DC. Doubtfully distinct. Inanda.

3. *dregei* DC. Doubtfully distinct. Inanda.

**4. AGERATUM L.**

*conyzoides* L. Common weed. Coast and Midlands.

**5. MIKANIA** Willd. "umDlonzo."

1. *capensis* DC. (*scandens* Willd.) Coast and Midlands.
2. *natalensis* DC. (*scandens* Willd.) Coast and Midlands.

**6. DICHROCEPHALA** L'Herit.

*latifolia* DC. Annual weed.

**7. ASTER** L. (Including *Diplopappus* DC.)

1. *asper* Nees. (*Felicia asper* O. Hoffm.) Common in grassveld all over Natal. "uDlutshana" or "umHlungwane."  
*asper* var *pleiocephalus*. Common in Midlands.
2. *erigeroides* Harv. Coast and Midlands. "isiTelelo."
3. *filifolus* Vent.
4. *hispidus* Baker. Drakensberg.
5. *natalensis* Harv. Summit of Table Mountain, Drakensberg.
7. *quinquenervis* Klatt. Edge of wood, Polela, 5-6,000 ft.
8. *serrulatus* Harv. Zululand.
9. *uliginosus* Wood & Evans. Damp places, Drakensberg, 11,000 ft.
10. *woodii* Klatt. Van Reenen.

**8. FELICIA** Cass.

1. *amelloides* Schltr. Drakensberg, 8,700 ft.
2. *drakensbergensis* Wood & Evans. Sources of Tugela, 11,000 ft.
3. *laevigata* Sond. Drakensberg.
4. *linearis* N.E.Br. Amawahqa, 6-7,000 ft.
5. *lingulata* Klatt.
6. *lutea* N.E.Br. Zululand. Entumeni, 2,000 ft.
7. *muricata* Nees. Midlands and Drakensberg.
8. *pinnatifida* Wood & Evans. Sources of Tugela, 11,000 ft.

**9. ERIGERON** L.

1. *canadensis* L. Weed. Common all over.
2. *linifolius* Willd. Weed. Coast and Midlands.

**10. NIDORELLA** Cass.

1. *anomala* Steetr. Midlands. Moist places.
2. *auriculata* DC. Coast, Midlands and Zululand.
3. *foliosa* Cass. Inanda.
4. *hottentotica* DC. Zululand.
5. *linifolia* DC.
6. *resedaefolia* DC. Itafamasi, 1,500 ft.

**11. CONYZA** Less.

1. *aegyptiaca* Ait. Inanda. Grassveld. 2,000 ft.
2. *incisa* Ait. Inanda, 2,000 ft. "uMachakazi."
3. *ivaefolia* Less. Common in damp places.
4. *obscura* DC. Midlands. Common.
5. *pinnatilobata* DC. Midlands and Drakensberg. Common.
6. *podocephala* DC. Drakensberg.

**12. NOLLETIA** Cass.

1. *ciliaris* Steetz. Drakensberg.
2. *rarifolia* Steetz. Midlands and Drakensberg.

**13. CHRYSOCOMA** L.

- tenuifolia* Berg. Common weed. Midlands and Drakensberg.

**13a. PENTHERIELLA** O. Hoffm. and Muschler.

- crookii* O. Hoffm. and Muschler. Van Reenen.

**14. HETEROMMA** Bth.

1. *decurrens* Bth. Van Reenen, 6,000 ft.
2. *simplicifolia* Wood & Evans. Polela, Drakensberg, 7,000 feet.

**15. BRACHYLAENA** R.Br. "isiDuli."

1. *dentata* DC. Noodsberg, 3,000 feet.
2. *discolor* DC. Coast up to 2,000 ft. Common. Tree. "um-Pahla."
3. *elliptica* Less. Coast and Midlands. Common in Thorn veld. Tree.
4. *racemosa* Less. Sutherland, Weenen County.
5. *uniflora* Harv. Qudeni, Zululand, 6,000 ft.
6. *sp.* (Wood 936). Coastbelt.

**16. TARCHONANTHUS** L.

1. *camphoratus* L. Common tree in coast scrub and occasional in Midland Thorn veld.
2. *minor* Less. Zululand.
3. *trilobus* DC. Inanda and Zululand.

**17. BLUMEA** DC.

1. *lacera* DC. Common up to 2,000 ft.
2. *natalensis* Sch. Bip. Coast and Midlands.

**18. LAGGERA** Sch. Bip.

- alata* Sch. Bip. Coast and Midlands.

**18a. PLUCHEA** Cass.

- dioscorides* DC. Lower Tugela, 1—300 ft.

**19. DENEKIA** Thb.

1. *capensis* Thb. Common in moist places all over.
2. *glabrata* DC. Vlei near Howick, 4-5,000 ft.

**20. SPHAERANTHUS** L.

- peduncularis* DC. Moist places. Midlands.

**21. AMPHIDOXIA** DC.

- gnaphaloides* DC. In damp ground. Coast and Midlands.

**22. ACHYROCLINE** Less.

- sp.* (Wood 523) Swampy ground, Inanda.

**23. GNAPHALIUM** L.

1. *luteo-album* L. Coast to Drakensberg.
2. *purpureum* L. Common weed.
3. *undulatum* L. Weed.



24. **HELICHRYSUM** Adans.

1. **natalitium** DC. Coast and Midlands.
2. **stenopterum** DC. Coast and Midlands.
3. **gerrardi** Harv. Inanda.
4. **odoratissimum** (L.) Less. Drakensberg.
5. **infaustum** Wood & Evans. Drakensberg, 6—9,000 ft.
6. **inerme** Moeser. Midlands.  
**infaustum** var **discolor** Moeser. Mont Aux Sources.
7. **umbraculigerum** Less. Coast and Midlands. Common.
8. **subglomeratum** Less. Midlands and Drakensberg.
9. **glomeratum** Klatt. Midlands.
10. **nanum** Klatt. Drakensberg and Mts.
11. **oligopappum** Bolus. Midlands, 3-4,000 ft.
12. **alticolum** Bolus var **montanum**. Mont Aux Sources, 9,500 feet.
13. **callicomum** Harv. Midlands and Drakensberg.
14. **dasycephalum** O. Hoffm. Van Reenen.
15. **kraussii** Sch. Bip. Coastbelt.
16. **zeyheri** Less. Drakensberg.
17. **cymosum** Less. Doubtful. Confused with next.
18. **fruticosum** (Forsk) Vatke. Insiswa, 6,500 ft.
19. **latifolium** (Thb.) Less. Coast and Midlands. Common.
20. **pedunculare** (L.) DC. Midlands.
21. **griseum** Sond. Coastbelt.
22. **thapsus** O. Hoffm. Midlands, 4-5,000 ft.
23. **allioides** Less. Midlands. Maritzburg.  
**allioides** var **dilatatum** Moeser. Coastbelt.
24. **nudifolium** Less var **quinquenerve** Moeser. Midlands.  
**nudifolium** var **leiopodium** (DC.) Moeser. Pinetown.
25. **subulifolium** Harv. Mooi River.
26. **miconiaefolium** DC. Midlands.
27. **krebsianum** Less. Midlands and Drakensberg.
28. **calocephalum** Klatt. Doubtful; confused with last.
29. **undatum** (Thb.) Less.  
**undatum** var **pallidum**. Drakensberg foothills.
30. **mundtii** Harv. Drakensberg, 6,500 ft.
31. **acutatum** DC. Coastbelt grassveld.  
**acutatum** var **rhombifolium** Moeser. Inanda.
32. **lanatum** Harv. Drakensberg.
33. **oreophilum** Klatt. Midlands and Drakensberg.
34. **kuntzei** O. Hoffm. Charlestown.
35. **dregeanum** Sond. Drakensberg.
36. **simillimum** DC. Midlands and Drakensberg.
37. **athrixifolium** O. Hoffm. Colenso, 3-4,000 ft. Somkeli.
38. **rugulosum** Less. Midlands.
39. **rosum** (Berg) Less. var **concolorum**.

40. *teretifolium* Less. Coast sand dunes. Common.
41. *splendidum* (Thb.) Less. Drakensberg. Common.
42. *auronitens* Sch. Bip. All over in wet places. "inKondhlwane."
43. *obductum* Bolus. Noodsberg, 2—3,000 ft.
44. *trilineatum* DC. var *tomentosum* Harv. Drakensberg.  
*trilineatum* var *brevifolium* Harv. Drakensberg.
45. *populifolium* DC. Inanda, Noodsberg, Groenberg.
46. *hypoleucum* Harv. Midlands and Drakensberg. In kloofs.
47. *capillaceum* Less. Midlands and Drakensberg.
48. *ericaefolium* Less var *vulgare* Harv. Durban.  
*ericaefolium* var *albidulum* DC. Midlands.  
*ericaefolium* var *appressifolium* Moeser. Botha's Hill.  
*ericaefolium* var *lineare* (D.C.) Harv. Colenso.
49. *caespititium* Sond. Mt. Gilboa and Drakensberg.
50. *argyrosphaerum* DC. Zululand.
51. *leptolepis* DC. Zululand.
52. *sutherlandi* Harv. Mts. and Drakensberg. Common.
53. *declinatum* Less. Uncertain.
54. *serpyllifolium* (Berg) Less. Uncertain.
55. *diffusum* DC. Drakensberg.
56. *auriculatum* (Thb.) Less. Doubtful.
57. *lepidissimum* S. Moore. Izingolweni.
58. *petiolatum* DC. Midlands. Insiswa.
59. *chionosphaerum* DC. Mont Aux Sources, 8—10,000 ft.
60. *randii* S. Moore. Drakensberg, 7—10,000 ft.
61. *appendiculatum* (L.f.) Less. Midlands and Drakensberg.  
*appendiculatum* var *discolor* (DC.) Harv. Coast to Drakensberg.
62. *ascendens* (Thb.) Less. Coast to Drakensberg.  
*ascendens* var *cephaloideum* Moeser. Common all over.
63. *longifolium* DC. Coast and Midlands.
64. *pannosum* DC. Midlands.
65. *sessile* DC. Drakensberg.
66. *squamosum* Thb. Common all over.
67. *argyrolepis* MacOwan. Byrne, 3,000 ft.
68. *confertifolium* Klatt. Insiswa, 6,000 ft.
69. *scapiforme* Moeser. Midlands and Drakensberg.
70. *marginatum* DC. Midlands and Drakensberg, to 10,000 ft.
71. *album* N.E.Br. Drakensberg, 7—10,000 ft.
72. *adenocarpum* DC. Coast to Drakensberg. Common.
73. *elegantissimum* DC. Mont Aux Sources, 9,500 ft.
74. *decorum* DC. Coastbelt. Common.
75. *foetidum* (L.) Cass. Coast to Drakensberg. Common.
76. *setosum* Harv. Midlands.
77. *fulgidum* (L.) Willd. Coast to Drakensberg. Common.  
*fulgidum* var *monocephalum* DC. Coast to Drakensberg.

78. *cooperi* Harv. Coast to Drakensberg.
79. *fulvum* N.E.Br. Drakensberg.
80. *haygarthii* Bolus. Van Reenen.
81. *epapposum* Bolus. Uncertain.
82. *flanagani* Bolus. Mont Aux Sources, 9,500 ft.
83. *argentissimum* J. M. Wood. Mt. Gilboa.
84. *opacum* Klatt. Amajuba Mt., 6—7,000 ft.
85. *polycladum* Klatt. Uncertain.
86. *retortoides* N.E.Br. Drakensberg.
87. *woodii* N.E.Br. Rocks near Emberton, 2,100 ft.
88. *setigerum* Bolus. Mont Aux Sources.  
*setigerum* var *minor*. Van Reenen.
89. *homolochrysum* S. Moore. Noodsberg, 2—3,000 f.t
90. *pondoense* Schltr. Fairfield, Alexandra County.
91. *bellidiastrum* Moeser. Mont Aux Sources, 9,000 ft.
92. *obvallatum* DC. Ingwavuma N.E. Zululand.
25. **LEONTONYX** Cass.
  1. *coloratus* Cass. Near Byrne. Midlands.  
*coloratus* var *intermedius*. Zululand.
  2. *squarrosus* DC. Drakensberg.
  3. *tomentosus* Cass. Common in vleis.
26. **CASSINIA** R.Br.
  - phylicifolia* (DC.) Wood. Coastbelt. "iThiela."
27. **METALASIA** R.Br.
  - muricata* Less. Common in Drakensberg.
28. **NESTLERA** Spreng.
  - virgata* N.E.Br. Drakensberg.
29. **RELHANIA** L'Herit.
  - pungens* L'Herit. Midlands.
30. **MACOWANIA** Oliv.
  - glandulosa* N.E.Br. Tabanhlope.
31. **PETALACTELLA** N.E.Br.
  - woodii* N.E.Br. Drakensberg.
32. **STOEBE** L.
  1. *cinerea* Thb. Common all over, usually on rocks.
  2. *tortilis* DC. Murchison Flats, 1—2,000 ft.
33. **ATHRIXIA** Ker-Gawl.
  1. *angustissima* DC. Drakensberg, 5—6,000 ft.
  2. *arachnoidea* Wood & Evans. Polela, 6,000 ft.
  3. *asteroides* Bolus & Schltr. Karkloof, 4—5,000 ft.
  4. *elata* Sond. Giants' Castle.
  5. *fontana* MacOwan. Midlands, 3—4,000 ft., usually in moist places.
  6. *gerrardi* Harv. Very common on Drakensberg.
  7. *phylicoides* DC. Common all over.
  8. *pinifolia* N.E.Br. Bushman's Caves, Drakensberg
  9. *sp.* (Evans 513). Umzimkulwana, 5—6,000 ft.

34. **INULA** L. (*Bojeria* DC.)  
*lanceolata* (Harv.) O. Hoffm.
35. **PRINTZIA** Cassini.  
 1. *asteroides* Schltr. Ixopo, 4—5,000 ft.  
 2. *densifolia* Wood & Evans. Nr. York, 3—4,000 ft.  
 3. *laxa*, N.E.Br. Drakensberg.  
 4. *pyrifolia* Less. Inanda and Drakensberg.
36. **PULICARIA** Gaertn.  
*capensis* DC. Coastbelt.
37. **GEIGERIA** Griesselich.  
 1. *burkei* Harv. Zululand.  
 2. *passerinoides* Harv. Zululand and Drakensberg.  
 3. *protensa* Harv. Zululand.  
 4. *natalensis* Wood & Evans. Stony hill above Greytown.
38. **CALLILEPIS** DC.  
*laureola* DC. Common all over. "imPila."
39. **PARTHENIUM** L.  
*hysterophorus* L. Near Verulam. Introduced.
40. **XANTHIUM** (Tourn) L. "uNonqamunqamana."  
 1. *spinosum* L. Common weed. Introduced. "iliGcume."  
 2. *strumarium* L. Common weed. Introduced.  
 3. *occidentale*.  
 4. *italicum*.
41. **ZINNIA** L.  
*pauciflora* L. Common in waste places. Introduced.
42. **SIEGESBECKIA** L.  
*orientalis* L. Common weed. Introduced.
43. **ECLIPTA** L.  
*erecta* L. Common weed.
44. **WEDELIA** Jacq. "ubuHlungwane."  
*natalensis* Sond. Coastbelt chiefly. Common.
45. **MELANTHERA** Rohr.  
*brownei* Sch. Bip. Inanda, 1,800 ft.
46. **HELIANTHUS** L.  
 1. *annuus* L. Mostly in cultivation. Introduced.  
 2. *giganteus* L.
47. **SPILANTHES** Jacq.  
*africana* DC. (*acmella* L.) Common weed.
48. **BIDENS** (Tourn) L. "uQadolo."  
 1. *pilosa* L. Very common weed. "Black jacks." Introduced.  
 2. *bipinnata* L. Rarer. Introduced.
49. **COSMOS** Cav.  
*bipinnatus* Cav. Weed. Introduced.



**50. TAGETES L.**

1. *erecta* L. Weed.
2. *minuta* L. Khaki weed. Common.

**51. TRIDAX L.**

- procumbens* L. Weed. Common. Near Durban.

**52. AMBROSIA L.**

- artemisaefolia* L. Camperdown, 2,000 ft.

**53. GALINSOGA Ruiz & Pav.**

- parviflora* Cav. Common weed.

**54. ATHANASIA L.**

1. *acerosa* D. Dietr. Coast and Midlands. Common around bush.
2. *coronopifolia* Harv. Nottingham Road, 4—5,000 ft.
3. *dregeana* Harv. Ingele Mt., 3,000 ft.
4. *leucoclada* Harv. Midlands.
5. *montana* Wood & Evans. Drakensberg.
6. *punctata* Harv. Stream banks, Midlands, and Drakensberg, 6,500 ft.
7. *thodei* Bolus. Drakensberg.
8. *tridens* Oliv. Blinkwater, Midlands.
9. *natalensis* Schltr. Fairfield, Alexandra County, 2—3,000 feet.

**55. EUMORPHIA DC.**

- sericea* Wood & Evans. Drakensberg, 8—10,000 ft.

**56. CHRYSANTHEMUM (Tourn) L.**

1. *osmitoides* Harv.
2. *nodosum* Thb. Mt. Insiswa, Umzimkulwana.

**57. MATRICARIA L.**

1. *nigellaefolia* DC. Common in moist places.
2. *zuurbergensis* Oliv. In damp woods, near Harding.

**58. COTULA (Tourn) L. (incl. *Cenia* Juss).**

1. *anthemoides* L.
2. *bipinnata* Thb. Near Durban.
3. *hispida* (Bth. & Hk.) Midlands.

**59. SCHISTOSTEPHIUM Less. (Under *Tanacetum* L.)**

1. *crataegifolium* Fenzl. Coast to Drakensberg. Common.
2. *rotundifolium* Fenzl. Coast to Inanda, and Zululand.
3. *griseum* (Harv.) Hutchin. Near Pinetown, 1,000 ft.
4. *heptalobum* Oliv. & Hiern. Port Shepstone.
5. *hippiaefolium* Hutchin. Makwaga Mt.
6. *saxicola* Hutchin. Coastbelt.
7. *villosum* Hutchin. Drakensberg and Zululand.

**60. GYMNOPENTZIA Bth.**

- pilifera* N.E.Br. Bushman's Caves. Drakensberg, 6-7,000 feet.

**61. PENTZIA** Thb.

1. *asteroides* Schltr.
2. *cooperi* Harv. Below Mont Aux ources, 9—10,000 ft.
3. *pinnatifida* Oliv. Midland grassveld.
4. *virgata* Less. Zululand.

**62. ARTEMESIA** L. "umHlonyane."

- afra* Jacq. Common around bush, all over.

**63. LOPHOLAENA** DC.

1. *dregeana* DC. Lower Umzimkulu grassveld, 300 ft.
2. *platyphylla* Bth. Noodsberg, 2—3,000 ft.

**64. GYNURA** Cassini.

- cernua* Bth. On wet rocks. Noodsberg, 2,500 ft.

**65. CINERARIA** L.

1. *albicans* N.E.Br. Byrne, Polela, Zululand.
2. *atriplicifolia* DC. Coast and Midlands.
3. *decipiens* Harv. Inanda.
4. *deltoidea* Sond.
5. *lobata* L'Herit. Drakensberg.
6. *lyrata* DC. Near Mooi River, 3—4,000 ft.
7. *othonnoides* Harv.
8. *geifolia* L. Van Reenen, 5—6,000 ft.
9. *montana* Bolus. Drakensberg, 5—6,000 ft.

**66. SENECIO** L.

1. *achillaeifolius* DC. Near Greytown, 4—5,000 ft.
2. *adenophyton* Schltr. and Muschler. Alexandra County.
3. *albanensis* DC. Hilton Road.  
*albanensis* var *leiophyllus*.
4. *dieterlenii* Phillips (*angulatus* (L.f.) Wood). Van Reenen.
5. *barbatus* DC. Liddesdale, 4—5,000 ft. Drakensberg, 9,500 ft.
6. *barbellatus* DC. Inanda. Common.
7. *bryonaefolius* Harv. Ismont, 2,000 ft.
8. *bupleuroides* DC. Common all over.
9. *burchellii* DC. Near Byrne, 2—3,000 ft.
10. *caudatus* DC. Vleis. Eisdumbeni and Inanda, 2,000 ft.
11. *caulopteris* Harv. & Sond. Umhlanga, 3—5,000 ft.
12. *colensoensis* O. Hoffm. Near Colenso.
13. *concolor* DC. Damp places. "iliDambisa."
14. *crenatus* Thb. Zululand, 2,000 ft.
15. *crenulatus* DC. Illovo, 1,800 ft.  
*crenulatus* var *discoideus*. Near York, 4,000 ft.
16. *decurrens* DC. Midlands and Drakensberg.
17. *deltoideus* Less. Coast to Drakensberg. Climber.
18. *drakensbergensis* Klatt. Drakensberg.

19. **dregeanus** DC. Umgeni Falls.  
     **dregeanus** var **discoideus**. Inanda, 1,800 ft.
20. **erubescens** Ait. Coast and Midlands. Common.  
     **erubescens** var **crepidifolius**. Coast and Midlands.  
     **erubescens** var **dichotomus**.  
     **erubescens** var **incisus**. Inanda.
21. **evansii** N.E.Br. Drakensberg, 6—7,000 ft.
22. **fulgens** Nichols. Inanda, 2,000 ft.
23. **gerrardi** Harv. Bush margins. Midlands and Zululand.
24. **galpini** Hk.f.
25. **glaberrimus** DC. Umzimkulu.
26. **gramineus** Harv. Drakensberg, 9,500 ft.
27. **harveianus** MacOwan. Greytown, 3—4,000 ft.
28. **hastulatus** L. Near Durban.
29. **hieracioides** DC. Drakensberg.
30. **isatideus** DC. Near Estcourt and Drakensberg.
31. **juniperinus** L.f. Common all over. "umTitimbila."
32. **kuntzei** O. Hoffm.
33. **lanceus** Ait. Coastbelt.
34. **latifolius** DC. Very common all over.
35. **lasiorhiza** DC. Inanda and Zululand.
36. **launayaefolius** O. Hoffm. Drakensberg, 4,000 ft.
37. **leontodontis** DC. Zululand.
38. **longifolius** DC. Umkomanzi.
39. **macrocephalus** DC. Drakensberg.  
     **macrocephalus** var **hirsutissimus**. Drakensberg.
40. **macroGLOSSUS** DC. Climber in and around bush. Common.
41. **mikanioides** Ott.
42. **napifolius** MacOwan. In ravine, South Downs, 4—5,000 ft.
43. **nudiusculus** DC. Van Reenen's Pass, 5—6,000 ft.
44. **oblongoideus** DC. Alexandra County, 1,800 ft.
45. **othonnaeflorus** DC. Vlei, Van Reenen, 5—6,000 ft.
46. **oxyodontus** DC. Midlands, 2,000ft., and Zululand, 2,000ft.
47. **oxyriaefolius** DC. Murchison Flats, 1—2,000 ft.
48. **pandurifolius** Harv. Edges of bush. Midlands. Common.
49. **paniculatus** Berg.
50. **paucicalyculatus** Klatt. Biggarsberg and Drakensberg.
51. **pellucidus** DC. Inanda, 1,800 ft.
52. **picridifolius** DC. Coastbelt vleis and Zululand.
53. **pinnatifidus** Less. Polela, 6—7,000 ft.
54. **prostratus** Klatt. Insiswa Mt., 6,800 ft.
55. **pterophyllus** DC. var **apterus**. Coast and Midlands. Common.
56. **pullus** Klatt. Umgeni Falls.
57. **purpureus** L. Inanda, 1,800 ft.

58. *quinquelobus* DC. var *helminthoideus*. Inanda, 1,800 ft.
59. *rhomboideus* Harv. Coast to Drakensberg.
60. *rhyncolaeus* DC. Coast and Midlands.
61. *rigidus* L. Near Harding, 3—4,000 ft.
62. *rudatisii* Schltr. & Muschler. Alexandra County, 1,800 ft.
63. *sandersoni* Harv. Midlands and Drakensberg.
64. *segmentatus* Oliv. Fields Hill, 1,500 ft.
65. *serra* Sond.
66. *seminivea* Wood & Evans. Mont Aux Sources, 10—11,000 feet.
67. *serratuloides* DC. Coast and Midlands.
68. *speciosus* Willd. Coast and Midlands.
69. *subcoriaceus* Schltr. Near Newcastle, 3,900 ft.
70. *subrubriflorus* O. Hoffm. Drakensberg.
71. *tamoides* DC. Coast and Midlands. Climber.
72. *tanacetoides* Sond. River bed. Foot of Mont Aux Sources.
73. *thyrsoideus* DC. Drakensberg, 5—9,000 ft.
74. *trachylepus* Klatt.
75. *tugelensis* Wood & Evans. Mont Aux Sources, 10—11,000 feet.
76. *tysoni* MacOwan. Near Richmond, 2—3,000 ft.
77. *venosus* Harv. Vlei near Richmond, 2—3,000 ft.
78. *viscidus* N.E.Br. (*subrubiflorus* O. Hoffm?) Van Reenen, 5—6,000 ft.
79. *sp.* with nearly terete fleshy leaves. (Wood 9624), Greytown.
80. *reptans* Turcz. Summit of Mont Aux Sources, 10,000 ft.
81. *cordifolius* N.E.Br. Bushman's River Valley.
82. *pleistocephalus* S. Moore. N.E. Zululand.
83. *macrophyllus* Phillips. Midlands and Drakensberg.
84. *montanus* Phillips. Mont Aux Sources, 9,500 ft.
67. **HERTIA** Less. (*Othonnopsis* Jaub. & Spach.)  
*natalensis* O. Hoffm. Near Mooi River, 4—5,000 ft.
68. **EURYOPS** Cassini.
  1. *evansii* Schltr. Summit of Drakensberg.
  2. *natalensis* Schltr. & Muschler. Alexandra County, 1,800 ft.
  3. *pedunculatus* N.E.Br. Drakensberg. Hlatikulu.
  4. *tysonii* Phillips. Drakensberg.
  5. *setiloba* N.E.Br. Nottingham Road, 4—5,000 ft.
  6. *tenuissimus* Less. Ismont, 2,000 ft.
  7. *montanus* Schltr. Drakensberg.
69. **GAMOLEPIS** Less.
  1. *debilis* Harv. Coast and Midland grassveld. Common.
  2. *laxa* Harv. Zululand.
70. **OTHONNA** L.
  1. *carnosa* Less var *discoidea* Oliv. Near sea.



2. *disticha* N.E.Br.
3. *natalensis* Sch. Bip. Coast and Midlands. "iNcamu."
4. *scapigera* Harv. Hills above York, 3—4,000 ft.
71. **DIMORPHOTHECA** Moench.
  1. *barberiae* Harv. Emyati.
  2. *caulescens* Harv. Summit of Drakensberg.
  3. *cuneata* DC.
  4. *fruticosa* DC. Common on sea beach.
  5. *nudicaulis* DC. var *latifolia* H. Van Reenen, 5—6,000 ft.
72. **TRIPTERIS** Less.
  - natalensis* Harv. Zululand. "uMadintsana."
73. **OLIGOCARPUS** Less.
  - calendulaceus* Less. Ruderal. Midlands.
74. **GARULEUM** Cass.
  1. *latifolium* Harv. Midlands.
  2. *viscosum* Cass. Charlestown, 5,500 ft.
  3. *woodii* Schinz. Charlestown, 5—6,000 ft.
  4. *sp.* (Wood 4385). Weenen County, 5,000 ft.
75. **OSTEOSPERMUM** L.
  1. *calendulaceum* Harv.
  2. *caulescens* Harv. Mooi River, 4—5,000 ft.
  3. *glaberrimum* O. Hoffm. Krantz Kloof, 1—2,000 ft.
  4. *grandidentatum* DC. Inanda, 1,800 ft. "iXoboxobo."
  5. *helichrysoides* DC. Umzimkulu.
  6. *herbaceum* L.f. Near Richmond.
  7. *lanceolatum* DC.
  8. *moniliferum* L. Common all over. Dominant in many places on seaside of sand dunes. "Etolonja."
  9. *muricatum* E.M. Weenen and Zululand.
  10. *nervatum* DC. Coast and Midlands. "uMasigeolo."
  11. *sonchifolium* DC. Klip River County.
  12. *sp.* (Wood 9807) Zululand.
76. **URSINIA** Gaertn.
  1. *alpina* N.E.Br. Damp rocks, Ulundi, 5—6,000 ft.
  2. *brevicaulis* Wood & Evans. Drakensberg, 6,000 ft.
  3. *apiculata* DC.
  4. *natalensis* N.E.Br. 'nKandhla, Zululand, 4—5,000 ft.
  5. *punctata* B. & M. Oliver's Hoek, Drakensberg.
  6. *foeniculata* Poir. Weenen County, 5,000 ft., and Zululand.
  7. *montana* DC. Drakensberg.
77. **HAPLOCARPHA** Less.
  - scaposa* Harv. Grassveld, Drakensberg and Upper Districts.
78. **CRYPTOSTEMMA** R.Br. Near Harding.
  1. *calendulaceum* R.Br. Near Harding.
  2. *niveum* Nichols. Coast sand dunes. Common.

**79. VENIDIUM** Less.

1. *arctotoides* Less. Drakensberg. Van Reenen. Upper Tugela.
2. *microcephalum* DC. Buffalo River.
3. *decurrens* Less. Drakensberg, 6,500 ft.

**80. GAZANIA** Gaertn.

1. *armerioides* DC. Drakensberg.  
*armerioides* var *sutherlandi*. Klip River.
2. *bracteata* N.E.Br.
3. *caespitosa* Bolus.
4. *longiscapa* DC. Abundant. Coast and Midlands. Very early flowering. "uBenhle." "isiPepane."
5. *rudatisii* Schltr. & Muschler. Alexandra County.
6. *serrulata* DC. Drakensberg.
7. *subulata* R.Br. Fairfield, Alexandra County.
8. *uniflora* Sims. Common strand plant, near sea.

**81. BERKHEYA** Ehrh. (incl *Stobaea* Thb.)

1. *amplexicaulis* O. Hoffm. Ixopo.
2. *carlinoides* Willd.
3. *debilis* MacOwan. Midlands. "uLimilwenkomo" or "uLimilwenyathi."
4. *evansii* Schltr. Drakensberg.
5. *fruticosa* Ehrh. Near Boston.
6. *grandiflora* Willd var *alternifolia*. Drakensberg.
7. *latifolia* Wood & Evans. Drakensberg.
8. *macrocephala* Wood. Midlands and Drakensberg.
9. *maritima* Wood & Evans. Near Durban.
10. *montana* Wood & Evans, Drakensberg.
11. *onobromoides* DC. Bet. Estcourt and Colenso.
12. *radula* Drakensberg.
13. *setifera* DC. Inanda.
14. *stobaeoides* Harv. & Sond. Van Reenen.
15. *subulata* Harv. Zululand.
16. *umbellata* DC.
17. *seminivea* Harv.
18. *purpurea* Bth & Hk.f. Drakensberg.
19. *acanthopoda* (DC.) (*Stobaea*).
20. *discolor* (DC.) (*Stobaea*). Lower Umkomaas, 150 ft.
21. *echinacea* (Harv.) (*Stobaea*). Charlestown, 5—6,000 ft.
22. *echinopoda* DC. (*Stobaea*). Midlands. Common.
23. *gerrardi* (Harv.) (*Stobaea*). Emyati.
24. *multijuga* (DC.) (*Stobaea*). Summits of Mont Aux Sources.
25. *mackenii* (Harv.) (*Stobaea*). Highlands.
26. *platyptera* (Harv.) (*Stobaea*). Coast and Midlands.

- 27. *rhapontica* (DC.) (*Stobaea*). Inanda.
- 28. *speciosa* (DC.) (*Stobaea*). Mooi River and Drakensberg.
- 29. *aristosa* (DC.) (*Stobaea*). Tabanhllope.
- 30. *bilabiata* N.E.Br. Van Reenen, 5—6,000 ft.
- 82. **PLATYCARPHA** Less.
  - glomerata* Less. Inanda. Rare.
- 83. **CENTAUREA** L.
  - 1. *solstitialis* L. Introduced weed.
  - 2. *melitensis* L. Introduced weed.
  - 3. *calcitrapa* L. Introduced weed.
- 84. **CNICUS** L.
  - lanceolatus* Willd. Introduced weed.
- 85. **DICOMA** Cassini (Grassveld.)
  - 1. *anomala* Sond. Common in Midland grassveld.
  - anomala* var *circioides*. Drakensberg, 5—6,000 ft.
  - anomala* var *microcephala*. Ladysmith 3—4,000 ft.
  - anomala* var *sonderi*. Drakensberg, 6,500 ft.
  - 2. *argyrophylla* Oliv. Common in Low veld. Midlands.
  - 3. *macrocephala* DC. Upper Tugela, 4—5,000 ft.
  - 4. *sessiliflora* Harv.
  - 5. *speciosa* DC.
  - 6. *zeyheri* Sond. Zululand.
- 86. **ANISOCHAETA** DC.
  - mikanioides* DC. Inanda. Fairly common.
- 87. **GERBERA** Gronovius.
  - 1. *ambigua* Sch. Bip. Mooi River and Drakensberg.
  - 2. *aurantiaca* Sch. Bip. Midland grassveld. Common.
  - 3. *kraussii* Sch. Bip. Common in grassveld. "Cabazane."
  - 4. *natalensis* Sch. Bip. Coast and Midlands.
  - 5. *parva* N.E.Br. Drakensberg, 6—9,000 ft.
  - 6. *piloselloides* Cass. Coast to Drakensberg.
  - 7. *plantaginea* Harv. Mooi River.
  - 8. *tuberosa* Klatt. Near Pinetown.
  - 9. *viridifolia* Sch. Bip.
  - 10. *elegans* Muschler.
- 88. **HIERACIUM** L.
  - 1. *capense* L. Common. Coast and Midlands.
  - capense* var *microcephala*. Upper Tugela, 4—5,000 ft.
- 89. **CREPIS** L.
  - 1. *japonica* Bth. Near Durban. Introduced.
  - 2. *polyodon* Phillips. Midlands and Drakensberg.
- 90. **HYPOCHAERIS** L.
  - 1. *glabra* L. Near Durban.
  - 2. *radiata* L. Mt. Gilboa, 4—5,000 ft.
- 91. **LACTUCA** L.
  - 1. *capensis* Thb. Common in Midlands.

2. *goracensis* Sch. Bip. Howick, 3—4,000 ft.

3. *indica* L. Inanda, 1,800 ft.

92. **LAUNAEA** Cassini.

*bellidifolia* Cass. Sand dunes, near sea.

93. **SONCHUS** L.

1. *ecklonianus* DC. Phoenix, 120 ft.

2. *integrifolius* Harv. Coast and Midlands.

3. *oleraceus* L. Weed. Common all over.

4. *rarifolius* Oliv. & Hiern. Weenen County, 4,500 ft.



## ERRATA.

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- Page 2.—Line 8 from top: For "gentleman" read "gentlemen."
- Page 9.—No. 19: For "1 JUNCACEAE" read "19 JUNCACEAE."
- Page 10.—No. 33, end of line: For "39" read "34."
- Page 42.—No. 26: For "KOELERIA ers" read "KOELERIA Pers"
- Page 44.—Under **CHLORIS**: For "umTaka" read "umYaka."
- Page 48.—Under **CYPERUS** L. add "4. *corymbosus* L. Coastbelt."
- Page 49.—No. 14: For "Stevd" read "Steud."
- Page 58.—No. 25: For "Van Reneen" read "Van Reenen."
- Pages 63 and 66: For "**VELLOSIA**" read "**VELLOZIA**."
- Page 69.—No. 9: For "K. Kah." read "C. Koch."
- Page 69.—No. 11: For "Nuller" read "Miller."
- Page 76.—No. 23: For "Thonars." read "Thouars."
- Page 84.—Last line: For "Hads." read "Huds."
- Page 107.—No. 75: For "**MILLETIA**" read "**MILLETTIA**."
- Page 109.—No. 9: For "C. & Z." read "E. & Z."
- Page 130.—Under **ELAEODENDRON**: For "capensis" read "capense" and for "albanensis" read "albanense."
- Page 138.—No. 21: For "Melvern" read "Malvern."
- Page 214.—No. 10. 1. For "Steetr." read "Steetz."

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